

7TH
***INTERNATIONAL DRUG ABUSE RESEARCH
SOCIETY***

PROGRAM AND ABSTRACTS

Recent Advances in Drug Addiction

*September 2 – 6, 2019
Hyatt Regency Hotel
Casablanca, Morocco*

Conference Organizers:

**Syed Ali, Nick Gilpin, Barbara Mason, Sulie Chang, Emmanuel Onaivi,
Michael Kuhar; Abdelouahhab Tazi, Antonio Noronha and George Koob**

Local Organizing Committee:

**Pr. Abdelouahhab TAZI (Chairman), Pr. Driss MOUSSAOUI, Pr. Meriem
El YAZAJI, Sara LAKEHAYLI, Dr. Nadia SAID, Soumaya EL GANOUNI**

The International Drug Abuse Research Society (IDARS) would like to thank the following organizations for their generous financial support of the meeting:



Ministry of Health Morocco

**The Addiction Research Center of Casablanca, Morocco
Faculty of Medicine, University Hospital**

Monday, September 2 - 6, 2019

REGISTRATION AND WELCOME

TBA – Check for sign at Lobby

3:00 – 6:00 PM

Tuesday, September 3, 2019

8:00 - 2:00PM Registration: Forum 2/3 Conference Area

Conference: Forum 2/3 - Meeting Hall

9:00 - 9:30AM Opening of the Meeting
Welcome/Travel Award Presentations
George Koob/Syed Ali

9:30 – 10:30AM Plenary Lecture I
Alcohol and Drug Addiction: The Gain in the Brain is in the Pain
George Koob, NIAAA, Baltimore, Maryland, USA

Moderator: Abdelouahhab Tazi, Casablanca, Morocco

10:30 -10:50AM COFFEE/TEA BREAK

SESSION I: CORTICAL REGULATION OF REWARD, COMPULSIVITY AND ALCOHOL DRINKING
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Moderators: George Koob (USA) and Nick Gilpin (USA)

10:50 - 11:10AM Cortical-Amygdala circuitry in reward learning and pursuit
Kate M. Wassum Department of Psychology, University of California Los Angeles,
Los Angeles, California USA

11:10 - 11:30AM Prefrontal regulation of punished ethanol self-administration.
Andrew Holmes, Laboratory of Behavioral and Genomic Neuroscience, National
Institute on Alcohol Abuse and Alcoholism, NIH, Bethesda, Maryland, USA

11:30 - 11:50AM Context-induced relapse of nicotine seeking after punishment-imposed
abstinence: role of anterior insular cortex.
Nathan Marchant, Department of Anatomy & Neurosciences, Amsterdam
University Medical Center, Amsterdam, The Netherlands, National Institute on Drug
Abuse, Baltimore, Maryland, USA

11:50 - 12:10PM Anterior insular cortex regulates renewal of alcohol-seeking after punishment
imposed abstinence
Andrew Lawrence, The Florey Institute of Neuroscience and Mental Health,
Parkville, Victoria 3052, Australia

12:10 - 12:30PM Exercise reduces escalated drinking in alcohol dependent mice via elevated
BDNF in prefrontal cortex
Howard Becker, Medical University of South Carolina, Charleston, South
Carolina, USA.

12:30 - 12:50PM Adolescent rat alcohol exposure alters adult brain mimicking human AUD
Fulton T. Crews, Bowles Center for Alcohol Studies, University of North Carolina
at Chapel Hill, Chapel, North Carolina, USA.

12:50 - 2:00 PM LUNCH

SESSION II: POSTER SESSION: 12:50 – 2:00 PM
Moderators : Ashraf Virmani (The Netherlands) and Syed Ali (USA)

(See Pages 17-19 for the List of Posters)

SESSION III: EXTENDED AMYGDALA REGULATION OF ADDICTION

Moderators: Antonio Noronha (USA) and Roberto Ciccocioppo (Italy)

2:00 – 2:20 PM **Reward and aversion biases in projector populations of the amygdala and insular cortex.**
Anna Beyeler, *Neurocentre Magendie, INSERM 1215, University of Bordeaux, Bordeaux, France*

2:20 – 2:40 PM **Coactivation of MOP and NOP opioid receptor to treat substances use disorders.**
Roberto Ciccocioppo, *School of Pharmacy, Pharmacology Unit, University of Camerino, Italy*

2:40 – 3:00 PM **Adolescent intermittent ethanol exposure alters fear conditioning and extinction behavior in adulthood**
Judson Chandler, *Department of Neuroscience, Medical University of South Carolina, Charleston, South Carolina, USA*

3:00 – 3:20 PM **Repeated binge drinking causes plastic increases in central amygdala corticotropin releasing factor neurons in vivo.**
D.R. Sparta, *Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, Maryland, USA.*

3:20 – 3:40 PM **Epigenetic mechanisms underlying molecular changes in the amygdala following adolescent alcohol exposure in humans and rodents.**
Subhash Pandey, *Center for Alcohol Research in Epigenetics, Department of Psychiatry, University of Illinois at Chicago, Chicago, Illinois, USA.*

3:40 - 4:00 PM **COFFEE/TEA BREAK**

SESSION IV: BRAIN OPIOIDS SIGNALING IN PAIN AND ADDICTION

Moderators: Eliot Gardner (USA) and Leandro Vendruscolo (USA)

4:00 – 4:20 PM **Heroin addiction engages glucocorticoid-dependent brain stress systems.**
Leandro Vendruscolo, *NIDA-IRP, Baltimore, Maryland, USA.*

4:20 – 4:40 PM **Involvement of endogenous ghrelin in oxycodone self-administration and brain stimulation reward.**
Eliot Gardner, *National Institute on Drug Abuse, National Institutes of Health, Baltimore, Maryland USA*

- 4:40 – 5:00 PM** **Functional upregulation of kappa opioid receptors in chronic pain states.**
Catherine Cahill, *University of California Los Angeles, Los Angeles, California USA*
- 5:00 – 5:20 PM** **Opioid use disorder in humans.**
Sandra Comer, *Columbia University, New York, NY, USA*
- 5:20 - 5:30 PM** **TRANSITION**

SESSION V: TRAVEL AWARD WINNER PRESENTATIONS

Moderators: Barbara Mason (USA) and Eliot Gardner (USA)

- 5:30 – 5:45 PM** **A multi-species neurogenomics approach to identify pathways & medications for alcohol use disorder**
Sean Farris*, *Waggoner Center for Alcohol and Addiction Research, The University of Texas at Austin, Austin, Texas, USA*
 (* George Koob Travel Awardee)
- 5:45 – 6:00 PM** **Manipulation of central amygdala neurotensin neurons alters the consumption of alcohol.**
Zoe McElligott**, *Bowles Center for Alcohol Studies, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA*
 (** Michael Kuhar Travel Awardee)
- 6:00 – 6:15 PM** **Cocaine self-administration induces transcriptional adaptation in the ventral pallidum**
Michel Engeln***, *Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, Maryland, USA*
 (***)Eliot Gardner Travel Awardee)
- 6:15 – 6:30 PM** **Prescription opioids, synaptic alterations and neurodevelopment: a systems biology approach.**
Gurudutt Pendyala****, *Department of Anesthesiology, University of Nebraska Medical Center, Omaha, Nebraska, USA*
 (**** Institute of NeuroImmune Pharmacology, Seton Hall University Travel Awardee)

Wednesday, September 4, 2019

8:00 - 11:00 AM **Registration: Forum Meeting area**
Breakfast: Forum Meeting Area

9:00 - 10:00 AM **Plenary Lecture II**
Ventral tegmental area neuronal diversity and motivated behavior
Marisela Morales, Integrative Neuroscience Research Branch, Neuronal Networks Section, National Institutes of Health, National Institute on Drug Abuse, Intramural Research Program, Baltimore, Maryland, USA.

Moderator: **Michael Kuhar (USA)**

10:00 – 10:20 AM **COFFEE/TEA BREAK**

SESSION VI: BINGE DRINKING: NEUROIMMUNE BIOMARKERS

Moderators: **Sulie Chang (USA) and Dipak Sarkar (USA)**

10:20 - 10:40 AM **Binge exposure to ethanol-mediated neuroinflammation modulating morphine's anti-nociception in B6 adolescent mice**
Sulie L. Chang, Institute of Neuroimmune Pharmacology and Department of Biological Sciences, Seton Hall University, South Orange, New Jersey, USA

10:40 - 11:00 AM **Microglia control stress axis function via secreting exosomes**
Dipak Sarkar; Rutgers Endocrine Research Program, Department of Animal Sciences, Rutgers University, New Brunswick, New Jersey, USA

11:00 – 11:20 PM **Alcohol and Cholesterol interact to control cerebral artery bk current via a PKC-dependent mechanism.**
Anna Bukiya, University of Tennessee Heath Science Center, Memphis, Tennessee, USA

11:20 -11:40 PM **Toluene constricts cerebral arteries by targeting smooth muscle BK channels**
Alex Dopico, University of Tennessee Heath Science Center, Memphis, Tennessee, USA

11:40 – 12:00 PM **Female gonadal hormone modulates etanol-induced memory déficit in post-pubertal female rats.**
Ratna Sircar, The City College of New York, New York, New York, USA.

12:00 – 12:20 PM **Involvement of specific nicotine receptors in alcohol, nicotine, Cocaine and methamphetamine intake and attentional performance.**
Amir Rezvani, Department of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, North Carolina, USA

12:20 - 2:00 PM **LUNCH**

SESSION VII: POSTER SESSION: 12:20 – 2:00 PM
Moderators : Ashraf Virmani (The Netherlands) and Syed Ali (USA)

(See Pages 17-19 for the List of Posters)

SESSION VIII: MEDICATIONS DEVELOPMENT: Alcohol/Cocaine/Nicotine

Moderators: Barbara Mason (USA) and Edith Sullivan (USA)

2:00 – 2:20 PM **A novel cutaneous gene therapy for alcohol abuse and co-abuse with cocaine.**
Ming Xu, *The University of Chicago, Chicago, Illinois USA*

2:20 – 2:40 PM **Translational studies of alcohol use disorder.**
Adolf Pfefferbaum, *SRI International, Menlo Park, California USA*

2:40 – 3:00 PM **Multisystem approaches to treating tobacco and other addictions.**
Ed Levine, *Duke University Medical Center, Durham, North Carolina, USA*

3:00 – 3:20 PM **Methamphetamine-associated cognitive decline involves aberrant proliferation of neural progenitor cells and is attenuated by neutralizing IL-1 signaling.**
Michal Toborek, *Department of Biochemistry and Molecular Biology, University of Miami, School of Medicine, Miami, Florida, USA*

3:20 - 3:40 PM **COFFEE/TEA BREAK**

SESSION IX: HIV-INFECTIONS AND DRUG ABUSE

Moderators: Mohan Sopori (USA) and Shilpa Buch (USA)

3:40 – 4:00 PM **Interaction between HIV and cigarette smoke in lung comorbidities.**
Mohan Sopori, *Lovelace Respiratory Research Institute, Albuquerque, New Mexico, USA*

4:00 – 4:20 PM **Opiates potentiate HIV-associated neuroinflammation: Role of EVS in microglial activation and migration.**
Shilpa Buch, *University of Nebraska Medical Center, Omaha, Nebraska USA*

4:20 – 5:00 PM **Alcohol-SIV/HIV-ART interactions & risk for comorbidities.**
Patricia Molina, *Louisiana State University Health Sciences Center, New Orleans, Louisiana USA*

5:00 – 5:20 PM **Activation of GPR55 induces neuroprotection of hippocampal neurogenesis during chronic system inflammation.**
Yuri Persidsky, *Department of Pathology and Laboratory Medicine, Temple University Health Science Center, Philadelphia, Pennsylvania, USA*

5:20 – 5:40 PM **Morphine tolerance is attenuated in germ-free mice and reversed by probiotics implicating the role of gut microbiome.**
Sabita Roy, *Department of Surgery, University of Miami, Miami, Florida, USA.*

SESSION X: FLASH TALKS by TRAINEES

Moderator: Nick Gilpin (USA)

5:45 - 5:50 PM **Intranasal oxytocin on alcohol withdrawal, craving and relapse: a double-blind RCT.**

Katrine Melby, *Department of Clinical Pharmacology, St. Olav University Hospital, Norway*

5:50 - 5:55 PM **Sucrose bingeing modifies alcohol reward in mice.**

Gaëlle Awad, *Labortorie de Neurosciences Cognitive et Adaptatives UMR 7364, CNRS/Universitie de Strasbourg, France*

5:55 - 6:00 PM **Involvement of NFKB in cocaine-associated reconsolidation using intravenous self-administration.**

Caroline Correia, *Laboratoire de Neurosciences Cognitives et Adaptatives (LNCA), Faculte de Psychologie, France*

6:00 - 6:05 PM **Sex differences in cocaine craving: role of the estrous cycle.**

Celine Nicolas, *Behavioral Neuroscience Branch, Intramural Research Program, NIDA, Baltimore, Maryland, USA*

6:05 - 6:10 PM **Initial characterization of opioid-induced respiratory depression in rats.**

Renata Marchette, *Neurobiology of Addiction Section, Integrative Neuroscience Branch, NIDA-IRP, Baltimore, Maryland, USA*

6:10 – 7:00 PM **IDARS Business Meeting**

Thursday, September 5, 2019

**Conference Organizers plan a tour of
Casablanca**

**Dinner will be Hosted by
Mr. Sâadeddine EL OTHMANI**

**Head of Government
The Kingdom of Morocco**

No Scheduled Conference activities

Friday, September 6, 2019

8:00 - 9:00 AM **Registration: Forum 2/3 Meeting Ballroom**
Breakfast: Foyer

9:00 – 9:30AM **Plenary Lecture III**
Addictions in Morocco: A Historical Prospective
Driss Moussaoui, Ibn Rushd University Psychiatric Centre
Casablanca, Morocco

Moderator: **George Koob (USA)**

9:30 – 10:00 AM **COFFEE/TEA BREAK**

SESSION XI: MARIJUANA/CANNABINOIDS I

Moderators: **Prakash Nagarkatti (USA) and Emmanuel Onaivi (USA)**

10:00 – 10:20 AM **Alcohol preference and behavioral modifications following deletion of CB2RS dopamine neurons and *microglia*.**
Emmanuel Onaivi , William Paterson Universtiy, Wayne, New Jersey, USA

10:20 – 10:40 AM **Effects of cannabidiol on cocaine seeking: dose-response profiles and neurobiological substrates.**
Friedbert Weiss, Department of Neuroscience, The Scripps Research Institute, La Jolla, California USA

10:40 – 11:00 AM **Epigenetic regulation of inflammation by marijuana cannabidiol.**
Prakash Nagarkatti, Universtiy of South Carolina, Columbia, South Carolina USA

11:00 – 11:20 AM **Protective effects of Δ^9 -tetrahydrocannabinol (THC) against SEB-induced acute lung injury results from alterations in lung dysbiosis.**
Mitzi Nagarkatti, Universtiy of South Carolina, Columbia, South Carolina USA

11:20 - 1:00 PM **LUNCH**

SESSION XII: MARIJUANA/CANNABINOIDS II

Moderators: **Mitzi Nagarkatti (USA) and Declan Ali (Canada)**

1:00 – 1:20 PM **Acute exposure to cannabinoids alters early neuronal development in Zebrafish.**
Declan Ali, University of Alberta, Edmonton, AB Canada

1:20 – 1:40 PM **Δ^9 -THC and related cannabinoids suppress substance p-evoked vomiting via activation of cannabinoid CB₁ receptors.**
Nissar Darmani, Western University of Health Sciences, Pomona, California USA

1:40 – 2:00 PM **Neuroadaptations of the endocannabinoid system following cocaine or sucrose intake.**

2:00 – 2:20 PM *Katia Befort*, *CNRS, Universite de Strasbourg, Strasbourg, France*
Alcohol preference and depression in *cnr2* knockout mice
Hiroki Ishiguro, *University of Yamanashi, Chuo, Yamanashi, Japan*

2:20 – 2:40 PM **Classic amphetamines versus new cathinones: comparative behavioral, neurochemical and glial signature.**
Frederico Pereira, *Institute of Pharmacology and Experimental Therapeutics, Faculty of Medicine, University of Coimbra, Coimbra, Portugal*

2:40 – 3:00 PM **COFFEE/TEA BREAK**

SESSION XIV: 3:00 – 5:00 PM

PANEL DISCUSSION, SUMMARY & RECOMMENDATION

George Koob, Abdelouahhab Tazi, Sulie Chang, Shilpa Buch, Emmanuel Onaivi, Prakash Nagarkatti, Barbara Mason, Susan Schenk, Eliot Gardner, and Syed Ali

7:00 - 10:00 PM
FAREWELL DINNER
Poolside Terrace

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