#### JOINTLY SPONSORED STATEMENT

#### **Accreditation Statement:**

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of Temple University School of Medicine and The College on Problems of Drug Dependence. Temple University School of Medicine is accredited by the ACCME to sponsor Continuing Medical Education for physicians.

#### **Certification Statement:**

Temple University School of Medicine designates this live activity for a maximum of 20 *AMA PRA Category 1 Credit(s)* <sup>TM</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### **Disclosure Policy:**

It is the policy of the Temple University School of Medicine, The Albert J. Finestone, M.D, Office of Continuing Medical Education that the speaker and provider disclose real or apparent conflicts of interest relating to the topics of this educational activity, and also disclose discussions of unlabeled/unapproved uses of drugs or devices during their presentation(s). Temple University School of Medicine, Office for Continuing Medical Education has established policies in place that will identify and resolve all conflicts of interest prior to this educational activity. Detailed disclosure will be made prior to the activity.

Updated: 12/17/09



If you have special needs that we can address to make your participation more meaningful and enjoyable, please contact our office at (215) 707-3242.

Updated: 12/17/09

#### TARGET AUDIENCE

Physicians, Residents/Fellows, Physician Assistants, Nurses, Medical Students

#### **OBJECTIVES**

Upon completion of this course, participants should be able to

- 1) critically evaluate current treatments for drug dependence
- 2) cite the latest findings in epidemiology, prevention and advances in treatment of drug abuse and dependence
- 3) select appropriate therapeutic approaches to dealing with issues of dependence to a variety of abused substances

#### **QUALIFYING SYMPOSIA AND WORKSHOPS FOR CME CREDITS**

#### Sunday, June 10

SII: (3-5 PM) Mechanisms Involved in Effects of Abused Drugs on HIV and the Immune System *2 CREDITS* 

WIII: (8-10 PM) Technology-Based Interventions for the Prevention and Treatment of Substance Use Disorders: Development, Evaluation and Potential Public Health Impact *2 CREDITS* 

WIV: (8-10 PM) Assessment of Abuse Deterrent and Tamper Resistant Technologies: From the Bench-Top to the Users 2 CREDITS

#### Monday, June 11

SIII: (1-3 PM) Exercise as a Treatment for Drug Dependence in Humans 2 CREDITS

SIV: (1-2 PM) Novel Methods for Assessing the Prevalence of Drug Use and Drug Related Harms in Large Populations and Large-Scale Responses *1 CREDIT* 

SV: (3:30-5:30 PM) Do We Under-Treat the Most Prevalent Form of Substance Abuse Among Pregnant Women? *2 CREDITS* 

SVI: (3:30-4:30 PM) Culturally Tailored Treatments for Racial/Ethnic Minority Substance Users 1 CREDIT

WVII: (8-10 PM) Non-Medical Prescription Drug Use Among ED and Trauma Patients 2 CREDITS

WVIII: (8-10 PM) NIDA Medication Development Workshop. Early Drug Development: Predicting and Assessing Safety 2 CREDITS

#### **Tuesday, June 12**

SVII: (3:15-5:15 PM) Deaths During and After Opioid Treatment: Results From Studies in the U.S., the U.K., the E.U., and Australia *2 CREDITS* 

WIX: (8-10 PM) What's New at NIDA's National Drug Abuse Treatment Clinical Trials Network? Findings and Observations From Recent Trials 2 CREDITS

WXI: (8-10 PM) Trauma-Informed Care for Adolescents With Co-Occurring Trauma and Substance Use Disorders: Interventions and Recent Outcomes With Diverse Adolescents *2 CREDITS* 

WXII: (8-10 PM) Mobile Health Treatment Interventions 2 CREDITS

#### Wednesday, June 13

SX: (10-11 AM) The Next Step in Neuroimaging Research Into Executive Functioning in Substance Dependence: Underlying Mechanisms and Clinical Implications 1 CREDIT

SXII: (2-3 PM) Is Abstinence the Only Meaningful Endpoint? Results From Secondary Analyses of Cocaine Treatment Studies *1 CREDIT* 

#### Thursday, June 14

SXIII: (10AM-12PM) From Bench to Bedside: Can Neurobiological Findings be Used to Improve Treatment Outcomes in Marijuana-Using Youth? *2 CREDITS* 

SXIV: (10AM-12PM) Extending the Data on XR-NTX in Opioid Dependence: Infectious Disease, Health Professionals, Justice Systems and Cost 2 CREDITS

SXV: (1:30-3:30 PM) Abuse of Buprenorphine and Buprenorphine and Naloxone: The Emerging Epidemic and What You Can Do About It *2 CREDITS* 

SXVI: (1:30-3:30 PM) Sleep Disturbance in Abstinence: Unifying Themes and Treatment Implications for Alcohol, Cannabis, Cocaine and Opiate Dependence

2 CREDITS

REGISTRATION FOR CME CREDITS IS \$75. PHYSICIANS SHOULD CLAIM ONLY THE CREDIT COMMENSURATE WITH THE EXTENT OF THEIR PARTICIPATION IN THE ACTIVITY.

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Consultant Member, Advisory Board of RADARS *Other* from PCM Scientific (Steering Committee

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Murat Yucel, Ph.D. National Health and Medical Research Council of

Australia (NHMRC), Australian Research Council (ARC),

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The planning committee and staff of the Office for Continuing Medical Education have provided disclosure information and indicated they do not have any financial relationships to disclose.

All conflicts have been resolved.

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#### PRE-MEETING SATELLITES

Fifth Meeting of the International Women's and Children's and Gender Group

Chaired by Frances E. Ashe-Goins and Wendee Wechsberg

Flores 1, 2 and 4

June 8

The 16<sup>th</sup> Annual NIDA International Forum: Building International Collaborative Research on Drug Abuse Chaired by Steven Gust

**Flores 5/6/7/8** June 8 - 9

NIDA and University of Texas Health Science Center at Houston Center: Biomarker Development for

Substance-Use Disorder

Chaired by Gerry Moeller and Shashi Amur

Fiesta 11 and 12

June 9

The International Study Group Investigating Drugs as Reinforcers (ISGIDAR)
Chaired by William Fantegrossi

Flores 4
June 9

12<sup>th</sup> Annual Substance Abuse and Mental Health Services Administration:

Center for Substance Abuse Treatment (CSAT) Chaired by Linda Kaplan **Flores 1/2/3** June 9

#### CPDD REGISTRATION Santa Rosa Room Hotel Lobby

Saturday, June 9	1:30 PM -	5:30 PM
Sunday, June 10	8:00 AM - 1:00 PM -	12:00 PM 5:00 PM
Monday, June 11	7:30 AM - 12:30 PM -	11:30 PM 5:00 PM
Tuesday, June 12	11:00 AM - 1:30 PM -	12:30 PM 5:00 PM
Wednesday, June 13	8:00 AM - 1:00 PM -	12:00 PM 5:00 PM
Thursday, June 14	7:30 AM - 1:30 PM -	11:30 AM 3:30 PM

#### OPENING RECEPTION Pool (Cash Bar)

Saturday, June 9 7:00 PM - 9:00 PM (Pre-registrants can pick up

badges only)

# **CSAT Travel Awards Breakfast** (BY INVITATION ONLY)

Capra 7:00 - 8:00 AM

### **Plenary Session**

Flores 4/5 8:30 - 11:30 AM

- 8:30 *Welcome, CPDD President* Scott E. Lukas, McLean Hospital, Belmont, MA
- 8:45 Report from the National Institute on Drug Abuse Nora D. Volkow, NIDA, Bethesda, MD
- 9:15 National Drug Control Policy: Emerging opportunities for policy and biomedical research Gil Kerlikowske, Office of National Drug Control Policy, Washington, D.C.
- 9:45 Presentation of the CPDD/NIDA Media Award to Dirk Hanson Introduction by Marc Kaufman
- 10:00 Presentation of the Joseph Cochin Young Investigator Award to Joshua A. Lile Introduction by Thomas H. Kelly
- 10:05 Presentation of the Mentorship Award to Kathryn A. Cunningham Introduction by Kelly Dineley
- 10:10 Presentation of the Nathan B. Eddy Award to Edward Sellers Introduction by Robert L. Balster
- 10:25 Nathan B. Eddy Award Lecture: The Dance of Science
  Edward M. Sellers, DL Global Partners Inc., Toronto, ON, Canada

# **Early Career Investigator Awards Lunch** (BY INVITATION ONLY)

Morgan's 11:45 - 1:00 PM

### President's Symposium

Flores 4/5 1:15 - 2:30 PM

# ADDRESSING THE CHALLENGES OF TOBACCO AND ALCOHOL USE

#### PRESENTATIONS AND OPEN FORUM

- 1:15 Introduction
  - Scott Lukas, McLean Hospital / Harvard Medical School, Belmont, MA
- 1:20 *Impact of combined nicotine patch and ethanol on desire for tobacco and drinking* David M. Penetar, McLean Hospital/Harvard Medical School, Belmont, MA
- 1:35 How can we use our knowledge of alcohol-tobacco interactions to reduce alcohol use? Sherry McKee, Yale University School of Medicine, New Haven, CT
- 1:50 Bringing NIAAA and NIDA together: Finally—the promise and the peril Jack Henningfield, Pinney Associates, Bethesda, MD
- 2:05 Speed Data—Excerpts from leading edge research in the combined effects of alcohol and other drugs of abuse
  Scott Lukas, McLean Hospital / Harvard Medical School, Belmont, MA
- 2:15 Open forum

### Symposium I

Flores 4 3:00 - 5:00 PM

# A STIMULATING SOAK IN "BATH SALTS": INVESTIGATING CATHINONE DERIVATIVE DRUGS

Chairs: Michael A. Taffe and Annette E. Fleckenstein

- 3:00 A state public health response to bath salts
  Jeffrey H. Moran, Arkansas Department of Health, Little Rock, AR
- 3:25 Synthetic cathinones and the federal scheduling process
  Terry Boos, Drug Enforcement Agency, Springfield, VA
- 3:50 Comparative effects of mephedrone, methamphetamine and methylenedioxymethamphetamine Annette E. Fleckenstein, University of Utah, Salt Lake City, UT
- 4:15 Behavioral and physiological effects of cathinone analogues in mice
  William E. Fantegrossi, University of Arkansas for Medical Sciences, Little Rock, AR
- 4:40 Entactogen or stimulant? Locomotor, thermoregulatory and self-administration assays in rats distinguish between novel cathinone analogues

  Michael A. Taffe, The Scripps Research Institute, La Jolla, CA

### **Symposium II**

Flores 5 3:00 - 5:00 PM

# MECHANISMS INVOLVED IN EFFECTS OF ABUSED DRUGS ON HIV AND THE IMMUNE SYSTEM

Chairs: Toby K. Eisenstein and Madhavan Nair

- 3:00 Multifunctional nanocarrier to treat opiate addiction and neuro-AIDS

  Madhavan Nair, Herbert Wertheim College of Medicine, Florida Intl University, Miami, FL
- 3:25 Epidemiological correlation: Interface between substance abuse and HIV disease Brian Wigdahl, Drexel University School of Medicine, Philadelphia, PA
- 3:50 *Mechanism of neuronal injury by drugs of abuse in HIV infection* Avindra Nath, NIH, Bethesda, MD
- 4:15 *CB2 and microglia: Role in HIV pathogenesis*Bryan R. Rock, University of Minnesota, Minneapolis, Minneapolis, MN
- 4:40 Discussant: The conundrum of how multiple abused drugs alter HIV infection and immune function

Toby K. Eisenstein, Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA

#### **Oral Communications 1**

Flores 1-3 3:00 - 5:00 PM

# BEYOND OUR BORDERS: INTERNATIONAL PERSPECTIVES ON DRUG RISK

Chairs: Karsten Lunze and Clyde B. McCoy

- 3:00 Diversification and implosion: The surging heroin epidemic inside Colombia

  C. B. McCoy<sup>1</sup>, I. E. Meija Motta<sup>2</sup>, Z. Espinel<sup>1</sup>, A. M. Bueno Ramirez<sup>3</sup>, J. M. Shultz<sup>1</sup>,

  A. J. McCoy Bengoa<sup>1</sup>, <sup>1</sup>Epidemiology & Public Health, Univ Miami, Miami, FL, <sup>2</sup>Colombian Ministry of Health, Bogotá, Colombia, <sup>3</sup>Colombian Institute for the Nervous System, Bogotá, Colombia
- 3:15 Prevalence of drug use among drivers who drank on alcohol outlets of Porto Alegre, Brazil R. De Boni<sup>1</sup>, F. V. Pechansky<sup>1</sup>, P. N. Silva<sup>2</sup>, M. T. Vasconcellos<sup>2</sup>, F. I. Bastos<sup>3</sup>, <sup>1</sup>Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil, <sup>2</sup>Escola Nacional de Ciências Estatísticas(ENCE/IBGE), Rio de Janeiro, Brazil, <sup>3</sup>ICICT, Fundação Oswaldo Cruz, Rio de Janeiro, Brazil
- 3:30 Substance use service development in Iraq
  R. Rawson, Integrated Substance Abuse Programs/Semel Institute, UCLA, Los Angeles, CA
- 3:45 Abuse and harassment of female IDUs by police in St Petersburg, Russia: Syringes and sex K. Lunze<sup>1</sup>, A. Raj<sup>2</sup>, D. M. Cheng<sup>1</sup>, E. L. Quinn<sup>1</sup>, C. Bridden<sup>1</sup>, E. Krupitsky<sup>3</sup>, A. Y. Walley<sup>1</sup>, J. H. Samet<sup>1</sup>, <sup>1</sup>Boston University, Boston, MA, <sup>2</sup>University of California, San Diego, CA, <sup>3</sup>Pavlov State Medical University, St Petersburg, Russian Federation
- 4:00 Training MMT counselors in provision of behaviorally oriented drug counseling in China R. Song<sup>1</sup>, W. Zhou<sup>2</sup>, R. Schottenfeld<sup>3</sup>, M. Chawarski<sup>3</sup>, <sup>1</sup>School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China, <sup>2</sup>Centers for Disease Control, Wuhan, China, <sup>3</sup>Yale University School of Medicine, New Haven, CT
- 4:15 ATS abuse adversely affects buprenorphine maintenance treatment in Malaysia M. C. Chawarski<sup>1</sup>, M. Mazlan<sup>2</sup>, R. Schottenfeld<sup>1</sup>, <sup>1</sup>Psychiatry, Yale University School of Medicine, New Haven, CT, <sup>2</sup>SARC, Muar, Malaysia
- 4:30 The role of drug market factors in shaping injecting initiation and current patterns of drug use: Findings from the Melbourne injecting drug user Cohort Study

  D. Horyniak<sup>1,2</sup>, L. Degenhardt<sup>1,3</sup>, T. Kerr<sup>4,5</sup>, M. Stoove<sup>1</sup>, P. Higgs<sup>1,6</sup>, P. Dietze<sup>1,2</sup>, <sup>1</sup>Burnet Institute, Melbourne, VIC, Australia, <sup>2</sup>Monash University, Melbourne, VIC, Australia, <sup>3</sup>University of Melbourne, Melbourne, VIC, Australia, <sup>4</sup>BC Centre for Excellence in HIV/AIDS, Vancouver, BC, Canada, <sup>5</sup>University of British Columbia, Vancouver, BC, Canada, <sup>6</sup>Kirby Institute, Sydney, NSW, Australia
- 4:45 Minimizing the unintended consequences of opioid treatment: Development of a drug behavior scale for use in Australia

  R. P. Mattick<sup>1</sup>, B. Larance<sup>1</sup>, R. Bruno<sup>2</sup>, E. Black<sup>1</sup>, N. Lintzeris<sup>3,4</sup>, L. Degenhardt<sup>1</sup>, S. Nielsen<sup>5</sup>, B. Murnion<sup>3,4</sup>, M. Cohen<sup>3,1</sup>, R. Ali<sup>6</sup>, A. Dunlop<sup>3,7</sup>, R. Holland<sup>3</sup>, <sup>1</sup>University of New South Wales, Sydney, NSW, Australia, <sup>2</sup>University of Tasmania, Hobart, TAS, Australia, <sup>3</sup>NSW Health, Sydney/Newcastle, NSW, Australia, <sup>4</sup>University of Sydney, Sydney, NSW, Australia, <sup>5</sup>Turning Point Alcohol and Drug Centre, Melbourne, VIC, Australia, <sup>6</sup>University of Adelaide,

Adelaide, SA, Australia, <sup>7</sup>University of Newcastle, Newcastle, NSW, Australia

#### **Oral Communications 2**

Flores 6-8 3:00 - 5:00 PM

#### THE DOUBLE WHAMMY: CHRONIC PAIN AND OPIOID ABUSE

Chairs: Linda Cottler and R. Kathryn McHugh

- 3:00 Mitigating the risks of addiction, abuse, and diversion: Undergraduate pain management curricula

  P. Morley-Forster<sup>1</sup>, J. Pergolizzi<sup>2</sup>, E. M. Sellers<sup>3</sup>, <sup>1</sup>The University of Western Ontario,
  London, ON, Canada, <sup>2</sup>Johns Hopkins University School of Medicine, Naples, FL, <sup>3</sup>DL Global Partners, Inc. Toronto, ON, Canada
- 3:15 Prescription opioid misuse among patients with a history of substance use disorder
  B. J. Morasco<sup>1,2</sup>, D. C. Turk<sup>3</sup>, S. K. Dobscha<sup>1,2</sup>, <sup>1</sup>Mental Health and Clinical Neurosciences
  Division, Portland VA Medical Center, Portland, OR, <sup>2</sup>Oregon Health & Science University,
  Portland, OR, <sup>3</sup>University of Washington, Seattle, WA
- 3:30 Gender differences in clinical characteristics of prescription-opioid-dependent patients
  R. McHugh¹, S. F. Greenfied¹, J. S. Potter², H. S. Connery¹, R. D. Weiss¹, ¹Psychiatry, McLean Hospital/Harvard Medical School, Belmont, MA, ²University of Texas Health Science Center, San Antonio, TX
- 3:45 Emotional risk factors for substance abuse in a chronic pain population

  L. Oberleitner<sup>1,2</sup>, M. A. Lumley<sup>1</sup>, E. R. Grekin<sup>1</sup>, A. M. Loree<sup>1</sup>, K. M. Zumberg<sup>1</sup>, J. N. Carty<sup>1</sup>,

  D. A. Valentino<sup>1</sup>, <sup>1</sup>Wayne State University, Detroit, MI, <sup>2</sup>School of Medicine, Yale University,

  New Haven, CT
- 4:00 Pain is associated with illicit drug use in HIV-infected Russian drinkers

  J. I. Tsui<sup>1</sup>, D. M. Cheng<sup>1</sup>, S. M. Coleman<sup>1</sup>, E. Blokhina<sup>2</sup>, C. Bridden<sup>1</sup>, E. Krupitsky<sup>2</sup>,

  J. H. Samet<sup>1</sup>, <sup>1</sup>Boston University, Boston Medical Center, Boston, MA, <sup>2</sup>St. Petersburg Pavlov State Medical University, St. Petersburg, Russian Federation
- 4:15 Opioid-induced hyperalgesia can it be reversed? A study of active and former opioid addicts and drug-naïve controls
   M. Schori¹, D. Pud³, R. Treister⁴, E. Eisenberg³, E. Lawental², ¹School of Social Policy and Practice, University of Pennsylvania, Philadelphia, PA, ²Department of Social Work, Tel-Hai College, Upper Galilee, Israel, ³Faculty of Social Welfare and Health Sciences, University of Haifa, Haifa, Israel, ⁴The Rappaport Faculty of Medicine, Technion Israel Institute of Technology, Haifa, Israel, ⁵Pain Relief Unit, Rambam Medical Center, Haifa, Israel
- 4:30 Patient input on a web-based self-management intervention for chronic pain and aberrant opioid-taking behavior
   S. K. Moore<sup>1</sup>, H. Guarino<sup>1</sup>, M. C. Acosta<sup>1</sup>, I. Aronson<sup>1</sup>, R. Cruciani<sup>2</sup>, L. A. Marsch<sup>3</sup>, A. Rosenblum<sup>1</sup>, D. C. Turk<sup>4</sup>, <sup>1</sup>NDRI, New York, NY, <sup>2</sup>BIMC, New York, NY, <sup>3</sup>Dartmouth College, Hanover, NH, <sup>4</sup>University of Washington, Seattle, WA
- 4:45 Patterns of prescription opioid use and diversion among 18- to 50-year-olds
  L. Cottler, C. W. Striley, S. E. Bradford, Epidemiology, University of Florida, Gainesville, FL

**Primm-Singleton Travel Awardees Meeting** 

The Studios 5:00 - 6:00 PM

Workshop I

Flores 1-3 8:00 - 10:00 PM

EPIDEMIOLOGY AND PUBLIC HEALTH RESEARCH METHODS (IF YOU HAVE A WIRELESS-EQUIPPED OR BLUETOOTH-EQUIPPED LAPTOP OR SMARTPHONE, PLEASE BRING IT TO THIS WORKSHOP SESSION)

Chairs: James (Jim) C. Anthony and Silvia S. Martins

Concepts and software for basic life table analyses of tobacco smoking time to event data John Troost, Michigan State University, East Lansing, MI

Generalized growth mixture models in addictive behaviors research Silvia S. Martins, Johns Hopkins University, Baltimore, MD

Count regression models for novel NIDA 'Process Phenotypes' Jim Anthony, Michigan State University, East Lansing, MI

Practical guide to propensity score modeling: Exploring causation in NIDA research Beth Ann Griffin, Rand Corporation, Arlington, VA

Methodological challenges and experiences faced in recruitment of minority participants in internet survey research

Fernando Wagner-Echeagaray, Morgan State University School of Public Health, Baltimore, MD

Workshop II

Flores 5

8:00 - 10:00 PM

WHAT'S NEW AT NIDA AND NIH: PEER REVIEW AND OTHER POLICIES THAT AFFECT APPLICANTS

Chairs: Teri Levitin, Eliane Lazar-Wesley and Meena Hiremath

Workshop III

Flores 4

8:00 - 10:00 PM

TECHNOLOGY-BASED INTERVENTIONS FOR THE PREVENTION AND TREATMENT OF SUBSTANCE USE DISORDERS: DEVELOPMENT, EVALUATION AND POTENTIAL PUBLIC HEALTH IMPACT

Chair: Lisa A. Marsch

Technology-based treatments for substance use disorders: An overview of the state of the research

Lisa A. Marsch, Dartmouth College, Lebanon, NH

Establishing preliminary efficacy: Research design and Internet-delivered contingency management for smoking cessation

Jesse Dallery, University of Florida, Gainesville, FL

Development of an efficacious online STI/HIV prevention program for young adults Sarah Lord, National Development and Research Institutes, Cambridge, MA

Technical and project management considerations in the development of web-based therapeutic tools

Michael Grabinski, Red 5 Group, LLC, New York, NY

Systems changes: Integrating therapeutic tools and performance monitoring in an electronic health records systems for 120 treatment programs

Deni Carise, Phoenix House Foundation, New York, NY

Technology and substance use: Themes, trends and future directions

Cecelia Spitznas, Behavioral and Integrative Treatment Branch, NIDA/NIH, Bethesda, MD

### Workshop IV

Flores 6-8 8:00 - 10:00 PM

# ASSESSMENT OF ABUSE-DETERRENT AND TAMPER-RESISTANT TECHNOLOGIES: FROM THE BENCH-TOP TO THE USERS

Chairs: Kerri A. Schoedel and Marta Sokolowska

*In vitro assessment of abuse-deterrent formulations* Edward J. Cone, Pinney Associates, Bethesda, MD

A focus on the clinical assessment of abuse-deterrent formulations Megan Shram, INC Research and University of Toronto, Toronoto, ON, Canada

Clinical trials and epidemiologic studies for confirmation of abuse deterrence Simon Budman, Inflexxion, Newton, MA

Regulatory perspective on abuse-deterrent formulations

Michael Klein, Center for Drug Evaluation and Research, Food and Drug Administration, Silver Spring, MD

Discussant

Kerri A. Schoedel, INC Research, Toronto, ON, Canada

#### **Animals in Research Forum**

Flores 1-3 8:00 - 9:45 AM

WHAT IS THE IMPACT OF NEW REGULATIONS IN THE 8TH EDITION OF THE GUIDE FOR ANIMAL RESEARCH ON SUBSTANCE ABUSE?

Chairs: Barry Setlow and Shane A. Perrine

The 8th edition of the Guide: How will it impact your institution

B. Taylor Bennett, National Association for Biomedical Research, Hinsdale, IL

AAALAC perspectives on the 8th edition of the Guide: Implementation and accreditation John Bradfield, AAALAC International, Frederick, MD

Discussant

Nancy A. Ator, Johns Hopkins School of Medicine, Baltimore, MD

#### Marian W. Fischman Memorial Award Lecture

Flores 4/5

10:00 - 11:00 AM

Presentation of the Marian W. Fischman Award to Marilyn E. Carroll Introduction by Nancy K. Mello

### **Poster Session I (Lunch)**

Fiesta

11:00 - 1:00 PM

Odd-numbered posters manned first hour; Even-numbered, second hour

Set-up time begins Sunday 1:00 PM Must be removed by Monday 1:30 PM

#### **OPIOIDS: ANIMAL STUDIES**

- 1 Evaluation of peptide and conjugate morphine vaccines in mice

  X. Shen¹, B. Kinsey¹,², Y. Lopez¹, Y. Wu¹,², Z. Huang³, F. Carroll⁴, D. Jackson⁵, W. Zeng⁵,

  B. Mao¹, F. Orson¹,², ¹Baylor College of Medicine, Houston, TX, ²Veterans Affairs Medical

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  Triangle Institute, Research Triangle Park, NC, ⁵The University of Melbourne, Parkville, VIC,

  Australia
- 2 Body weight loss as a measure of physical dependence after abrupt withdrawal of buprenorphine in rats
  - K. Benamar, J. Palma, E. B. Geller, M. W. Adler, A. Cowan, CSAR, Temple University School of Medicine, Philadelphia, PA
- 3 Reversal of fentanyl-induced respiratory depression with a novel opioid receptor antagonist ALKS 33 in dogs
  - R. L. Dean<sup>1</sup>, M. A. Hawk<sup>2</sup>, C. R. Hassler<sup>2</sup>, W. I. Li<sup>1</sup>, R. Z. Turncliff<sup>1</sup>, D. R. Deaver<sup>1</sup>, <sup>1</sup>Alkermes, Waltham, MA, <sup>2</sup>Battelle, Columbus, OH
- 4 ALKS 33 reverses fentanyl-induced respiratory depression in dogs: A mechanistic PK/PD model W. I. Li, R. L. Dean, R. Z. Turncliff, D. R. Deaver, Alkermes, Waltham, MA

- 5 C57BL/6J mice self-administer increased doses of oxycodone in extended self administration sessions
  - B. Mayer-Blackwell, Y. Zhang, A. Ho, M. J. Kreek, The Laboratory of the Biology of the Addictive Diseases, The Rockefeller University, New York, NY
- 6 The effects of acute and chronic methadone administration on memory retrieval in rats F. Leri, E. Cummins, C. Allen, A. Ricchetti, E. Boughner, K. Christenson, M. Haines, L. A. Parker, C. L. Limebeer, Psychology, University of Guelph, Guelph, ON, Canada
- 7 Effect of history of taste aversion conditioning on place preference learning in rats H. E. King, A. L. Riley, Psychology, American University, Washington, DC
- 8 Effect of morphine pretreatment on naloxone-induced conditioned taste aversions
  J. L. Cobuzzi, K. A. Siletti, A. L. Riley, Psychology Department, American University,
  Washington, DC

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- 9 Pharmacological manipulation of adenosine receptors alters choice patterns in an inhibitory control task
  - Z. T. Pennington, A. S. James, E. Seu, J. D. Jentsch, Psychology, UCLA, Los Angeles, CA
- 10 Behavioral and pharmacological effects of two novel serotonin 5-HT2 modulators
  D. Morgan<sup>1</sup>, K. Kondabolu<sup>2</sup>, A. Kuipers<sup>1</sup>, C. E. Canal<sup>2</sup>, R. G. Booth<sup>2</sup>, <sup>1</sup>Psychiatry, University of Florida, Gainesville, FL, <sup>2</sup>Medicinal Chemistry, University of Florida, Gainesville, FL
- 11 Metabotropic glutamate2/3 receptors differentially modulate discriminative stimulus effects of hallucinogens
  - T. Carbonaro, M. Forster, M. B. Gatch, Pharmacology & Neuroscience, UNT Health Science Center, Fort Worth, TX
- 12 Social novelty and discrimination are disrupted following acute administration of MDMA in rats S. A. Perrine, M. M. Roberts, C. J. Fitzpatrick, A. L. Eagle, Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI
- 13 The reinforcing effects of NS11808, a novel functionally selective GABAA receptor modulator Z. Meng¹, N. R. Mirza², P. A. Ahring², J. S. Larsen², J. K. Rowlett¹, ¹NEPRC, Harvard Medical School, Southborough, MA, ²NsDiscovery, Neurosearch A/S, Ballerup, Denmark
- 14 GABA-B receptor positive modulators: Enhancement of discriminative stimulus effects of GABA-B agonists, and effects when given alone
   W. Koek<sup>1,2</sup>, C. P. France<sup>2,1</sup>, K. Cheng<sup>3</sup>, K. C. Rice<sup>3</sup>, <sup>1</sup>Psychiatry, UTHSCSA, San Antonio, TX, <sup>2</sup>Pharmacology, UTHSCSA, San Antonio, TX, <sup>3</sup>Chemical Biology Research Branch, NIDA & NIAAA, Bethesda, MD
- Feeding condition, but not type of reinforcer, impacts the relative contribution of dopamine receptor subtypes to the discriminative stimulus effects of quinpirole in rats
   M. Baladi¹, C. P. France¹,², ¹Pharmacology, University of Texas Health Science Center, San Antonio, TX, ²Psychiatry, University of Texas Health Science Center, San Antonio, TX
- 16 Reinforcing and ICSS threshold-lowering effects of the "bath salts" drug MDPV
  L. R. Watterson<sup>1</sup>, P. R. Kufahl<sup>1</sup>, N. N. Nemirovsky<sup>1</sup>, K. Sewalia<sup>1</sup>, M. Grabenauer<sup>2</sup>,
  B. F. Thomas<sup>2</sup>, J. A. Marusich<sup>2</sup>, M. F. Olive<sup>1</sup>, <sup>1</sup>Psychology, Arizona State University,
  Tempe, AZ, <sup>2</sup>Discovery and Analytical Sciences, RTI International, Research Triangle
  Park, NC
- 17 Chronic ethanol consumption alters changes in response time distribution in rhesus macaques M. Wright, S. A. Vandewater, M. A. Taffe, CNAD, The Scripps Research Institute, San Diego, CA

- Narrowing of the generalization gradient occasioning ethanol-seeking with prolonged recovery B. C. Ginsburg, R. J. Lamb, Psychiatry and Pharmacology, The University of Texas Health Science Center at San Antonio, San Antonio, TX
- 19 Trace amine associated receptor 1 (TAAR1) is a target for the development of therapeutics for alcohol use disorders
  - G. M. Miller, D. M. Platt, E. J. Vallender, Harvard Medical School/NEPRC, Southborough, MA

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- 20 One-year reliability of the Maryland Resource for the Behavioral Utilization of the Reinforcement of Negative Stimuli
  - J. R. Dahne<sup>1</sup>, J. Garber<sup>1</sup>, N. Calvin<sup>2</sup>, C. Lejuez<sup>1</sup>, L. MacPherson<sup>1</sup>, <sup>1</sup>Psychology, University of Maryland, College Park, College Park, MD, <sup>2</sup>Emory University, Atlanta, GA
- 21 Working memory training decreases delay discounting rates in alcohol abusers
  E. T. Mueller, W. K. Bickel, M. K. Koffarnus, K. M. Gatchalian, A. E. Carter, C. L. Carrin,
  Advanced Recovery Research Center, Virginia Tech Carilion Research Institute, Roanoke, VA
- 22 Developmental pathways from childhood maltreatment to problematic alcohol use in young adulthood
  - S. H. Shin, S. Jeon, School of Social Work, Boston Univ, Boston, MA
- 23 Childhood maltreatment and the persistence of adult nicotine, alcohol and drug dependence R. D. Goodwin<sup>1</sup>, G. S. Seol<sup>1</sup>, D. Hasin<sup>1,2</sup>, <sup>1</sup>Columbia University, New York, NY, <sup>2</sup>NYS Psychiatric Institute, New York, NY
- 24 Temperament, childhood trauma, gender, and alcohol consequences: A study of person/environment interactions across the transition to college

  K. M. Zumberg, E. R. Grekin, Psychology, Wayne State University, Detroit, MI
- 25 The role of problematic alcohol use on sex risk behavior and HIV exposure among illicit drug users
  - M. Scherer, R. Trenz, P. Harrell, P. Mauro, W. Latimer, Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 26 Alcohol involvement and STI risk during late adolescence: Male-female differences
  V. H. Accornero¹, C. Lopez-Quintero², L. B. Friedman¹, A. Moreno¹, M. Puia-Dumitrescu¹,
  C. E. Spadola¹, J. E. Potter³, E. Mansoor¹, L. Xue¹, E. S. Bandstra¹, ¹Pediatrics, University of Miami Miller School of Medicine, Miami, FL, ²Braun School of Public Health, Hebrew University-Hadassah, Jerusalem, Israel, ³Obstetrics and Gynecology, University of Miami Miller School of Medicine, Miami, FL
- 27 Prevalence and predictors of sexual dysfunction in alcoholics: Results from an outpatient treatment center
  - M. Warnecke<sup>1</sup>, J. Rittenbruch<sup>1</sup>, P. E. Franke<sup>1</sup>, C. G. Schuetz<sup>2</sup>, <sup>1</sup>Psychiatry, University of Duesseldorf, Duesseldorf, Germany, <sup>2</sup>Psychiatry, University of British Columbia, Vancouver, BC, Canada
- Alcohol consumption as a function of dietary restraint and the menstrual cycle in moderate/heavy ("at-risk") female drinkers
   S. C. Reed¹, J. DiMatteo², S. M. Evans¹,² ¹Psychiatry, Columbia University College of Physicians & Surgeons, New York, NY, ²New York State Psychiatric Institute, New York, NY

- 29 Genetic and environmental factors underlying comorbid bulimic behaviors and alcohol use disorders: A role for personality?
  - J. D. Slane<sup>1</sup>, K. L. Klump<sup>2</sup>, M. McGue<sup>3</sup>, W. G. Iacono<sup>3</sup>, <sup>1</sup>Psychiatry, University of Michigan, Ann Arbor, MI, <sup>2</sup>Psychology, Michigan State University, East Lansing, MI, <sup>3</sup>Psychology, University of Minnesota, Minneapolis, MN
- 30 Alcohol and drug use disorders as potential moderators of the link between aggression and suicidal behavior
  - M. T. Swogger<sup>1</sup>, Z. C. Walsh<sup>2</sup>, K. R. Conner<sup>1,3</sup>, <sup>1</sup>Psychiatry, University of Rochester Medical Center, Rochester, NY, <sup>2</sup>Psychology, University of British Columbia, Kelowna, BC, Canada, <sup>3</sup>VA VISN 2 Center of Excellence for Suicide Prevention, Canandaigua, NY
- 31 Acute alcohol intoxication and non-suicidal self-injury
  M. C. Waesche, A. R. Lang, Florida State University, Tallahassee, FL
- 32 Alcohol use and cognitive impairment among older homeless persons

  L. Burns<sup>1</sup>, E. Conroy<sup>2</sup>, <sup>1</sup>NDARC, Sydney, NSW, Australia, <sup>2</sup>Medicine, University of Western Sydney, Sydney, NSW, Australia
- 33 Improved client outcomes with the use of Vivitrol in Los Angeles County
  D. A. Crevecoeur-MacPhail, S. Cousins, L. Denering, R. Rawson, NPI, UCLA ISAP, Los
  Angeles, CA
- 34 Characteristics associated with recurring DUI offenses in a state in Brazil

  A. R. Schmitz<sup>1,2,3</sup>, V. Gonçalves<sup>1,2</sup>, J. R. Goldim<sup>2,3</sup>, F. F. Zabala<sup>2</sup>, T. Souza<sup>2</sup>, F. Pechansky<sup>1,2</sup>,

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- 35 Motor vehicle crashes among former drinkers: Male-female differences
  P. Ruiz<sup>1,2</sup>, J. Troost<sup>1</sup>, J. C. Anthony<sup>1</sup>, <sup>1</sup>Epidemiology, Michigan State University, East
  Lansing, MI, <sup>2</sup>Universidad Peruana Cayetano Heredia, Lima, Peru
- 36 Do young adults interpret the DSM diagnostic criteria for alcohol use disorders as intended?

  L. Mewton¹, T. Slade¹, M. Teesson¹, S. Memedovic¹, R. Krueger², ¹National Drug and Alcohol Research Centre, University of New South Wales, NSW, Australia, ²Department of Psychology, University of Minnesota, Minneapolis, MN
- 37 Association of pretreatment drinking goal with treatment outcome: A secondary analysis of the COMBINE data
  - K. E. Dunn, E. C. Strain, Johns Hopkins School of Medicine, Baltimore, MD
- 38 Structural equation modeling with cross-lagged paths to evaluate Alcoholics Anonymous' effects on drinking: Preliminary results
  S. Magura<sup>1</sup>, C. M. Cleland<sup>2</sup>, <sup>1</sup>Western Michigan University, Kalamazoo, MI, <sup>2</sup>School of Nursing, NY University, N.Y., NY
- 39 *Impact of phone counseling on drug use and readiness to change in organ transplant patients* D. Haller, Columbia University College of Physicians and, New York, NY

#### IMPULSIVITY AND DECISION MAKING

40 Effects of addictive drugs on delay discounting in rats: A laboratory model of impulsive choice R. Srivastava<sup>1</sup>, N. Bruner<sup>2</sup>, M. W. Johnson<sup>2</sup>, Z. X. Xi<sup>1</sup>, E. L. Gardner<sup>1</sup>, <sup>1</sup>Intramural Research Program, National Institute on Drug Abuse, National Institutes of Health, Baltimore, MD, <sup>2</sup>Behavioral Pharmacology Research Unit, Johns Hopkins University School of Medicine, Baltimore, MD

- 41 Interaction between delay and effort on a behavioral regulation task in rats: Effects of methamphetamine
  - J. Richards, A. M. Gancarz, Research Institute on Addictions, Buffalo, NY
- 42 Isolation rearing as a model of attention deficit hyperactivity disorder

  M. Darna<sup>1</sup>, J. R. Yates<sup>2</sup>, C. D. Gipson<sup>3,2</sup>, M. T. Bardo<sup>2</sup>, L. P. Dwoskin<sup>1</sup>, <sup>1</sup>Department of Pharmaceutical Sciences, University of Kentucky, Lexington, KY, <sup>2</sup>Department of Psychology, University of Kentucky, Lexington, KY, <sup>3</sup>Department of Neuroscience, Medical University of South Carolina, Charleston, SC
- 43 Diminished brain activation in methamphetamine users during a Go-No-Go task C. Gonzales, G. King, L. Chang, H. Nakama, W. Deng, A. Stenger, John A. Burns School of Medicine, University of Hawaii at Manoa, Honolulu, HI
- Medial prefrontal cortex activation correlates with impulsivity and mediates dopaminergic reward network response
   B. J. Weiland<sup>1</sup>, D. Zald<sup>2</sup>, G. Samanez-Larking<sup>2</sup>, C. Cummiford<sup>1</sup>, T. Love<sup>1</sup>, R. A. Zucker<sup>1</sup>, M. M. Hetizeg<sup>1</sup>, J. K. Zubieta<sup>1</sup>, <sup>1</sup>University of Michigan, Ann Arbor, MI, <sup>2</sup>Vanderbilt University, Nashville, TN
- 45 The effects of catechol-O-methyltransferase inhibition on impulsivity: A functional MRI study in genotyped subjects

  J. Mitchell, A. Kayser, D. Allen, A. Navarro-Cebrian, H. Fields, Neurology: EGCRC, UCSF, Emeryville, CA
- 46 Effects of monoamine reuptake inhibitors on decision-making in the rat gambling task S. J. Eckrich, S. K. Saland, J. S. Rodefer, Neuroscience, Florida State University, Tallahassee, FL
- 47 Relationships between decision making, type of addiction and addiction severity
  J. Quintin<sup>1</sup>, F. Serre<sup>1</sup>, M. Fatseas<sup>1</sup>, S. Auriacombe<sup>2</sup>, M. Auriacombe<sup>1</sup>, <sup>1</sup>Addiction Psychiatry
  (CNRS USR 3413), Universite Bordeaux Segalen, Bordeaux, France, <sup>2</sup>Cognitive Disorder
  Clinic and Research Center, CHU de Bordeaux, Bordeaux, France
- 48 Exploring the differential impact of anxiety sensitivity and impulsivity on PPI-I and PPI-II factors of psychopathy in a substance-abusing population

  K. E. Long, M. N. Sargeant, S. B. Daughters, C. W. Lejuez, University of Maryland, College Park, MD
- Failure to look before leaping: The Barratt Impulsiveness Scale predicts treatment completion in cocaine- and methamphetamine-dependent patients
   T. Winhusen¹, D. Lewis¹, B. Adinoff².³, G. Brigham¹.⁵, F. Kropp¹, D. Donovan⁴, E. Somoza¹.⁶, ¹University of Cincinnati, Cincinnati, OH, ²University of Texas Southwestern, Dallas, TX, ³VA North Texas Health Care System, Dallas, TX, ⁴University of Washington, Seattle, WA, ⁵Maryhaven, Columbus, OH, ⁶Veterans Affairs Medical Center (VISN 10), Cincinnati, OH
- 50 Discounting by monkeys in an allomorphic choice paradigm: Immediate drug vs. delayed food K. B. Freeman<sup>1</sup>, L. Green<sup>2</sup>, J. Myerson<sup>2</sup>, W. L. Woolverton<sup>1</sup>, <sup>1</sup>The University of Mississippi Medical Center, Jackson, MS, <sup>2</sup>Washington University, St. Louis, MO
- 51 On the relation between delay discounting and demand in cocaine addicts

  D. P. Jarmolowicz<sup>1</sup>, W. K. Bickel<sup>1,2</sup>, C. Franck<sup>1,3</sup>, A. E. Carter<sup>1</sup>, M. Koffarnus<sup>1</sup>, <sup>1</sup>Advanced Recovery Research Center, Virginia Tech Carilion Research Institute, Roanoke, VA, <sup>2</sup>Psychology, Virginia Tech, Blacksburg, VA, <sup>3</sup>Laboratory for Interdisciplinary Statistical Analysis, Virginia Tech, Blacksburg, VA
- 52 Does delay discounting mediate the relationship between cocaine dependence and sexual risk behavior in HIV-infected persons?
  - C. S. Meade, L. A. Bevilacqua, L. X. Deng, Duke University, Durham, NC

- 53 Discounting of delayed sexual rewards in cocaine dependence is related to real world sexual risk behavior
  - M. W. Johnson, N. R. Bruner, Psychatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD
- 54 Longitudinal study of the association between impulsivity and tobacco use among young adults D. C. Lee<sup>1</sup>, Z. W. Adams<sup>2</sup>, R. Milich<sup>1</sup>, T. H. Kelly<sup>1</sup>, D. R. Lynam<sup>3</sup>, <sup>1</sup>University of Kentucky, Lexington, KY, <sup>2</sup>Medical University of South Carolina, Charleston, SC, <sup>3</sup>Purdue University, West Lafayette, IN
- 55 More impulsive smokers exhibit earlier preference reversals in laboratory task
  A. Tyson, A. K. Matusiewicz, R. Yi, Psychology, University of Maryland, College Park, MD
- Neurocognitive correlates of risky sexual behavior among young adult cannabis users
  R. M. Schuster<sup>1</sup>, N. Crane<sup>1</sup>, R. Gonzalez<sup>2</sup>, <sup>1</sup>Psychology, Univ Illinois at Chicago, Chicago, IL,
  <sup>2</sup>Psychiatry, Univ Illinois at Chicago, Chicago, IL

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- 57 Discounting of future rewards and brain activation in healthy 10-14 year-olds M. M. Benningfield, M. E. Ellsworth, J. U. Blackford, P. R. Martin, R. L. Cowan, Psychiatry, Vanderbilt University, Nashville, TN
- 58 Prefrontal activation during facial emotion-processing differentiates youth at high vs. low risk for the development of substance use disorders
  L. A. Hulvershorn¹, T. Hummer¹, Y. Wang¹, S. Kale¹, K. Havard¹, P. Finn², A. Anand¹, ¹Dept. of Psychiatry, Indiana University School of Medicine, Indianapolis, IN, ²Dept. of Psychological

and Brain Sciences, Indiana University, Bloomington, IN

- 59 Performance on the sexual discounting task: A predictor of adolescent substance use and sexual onset?
  - S. Thamotharan¹, M. W. Johnson², S. Fields¹, ¹Psychology, Texas A&M University, College Station, TX, ²Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, TX
- 60 Does executive functioning predict marijuana involvement by mid-adolescence?

  E. S. Bandstra¹, V. H. Accornero¹, L. Xue¹, E. Mansoor¹, M. Puia-Dumitrescu¹, C. E. Morrow¹,

  J. C. Anthony², ¹Pediatrics, University of Miami Miller School of Medicine, Miami, FL,

  ²Epidemiology, Michigan State University, East Lansing, MI
- 61 Negative affect reduction expectancies mediate the relationship between puberty and adolescent substance use
  - A. Collado-Rodriguez, G. Kurdziel, J. M. Townsend, L. MacPherson, C. W. Lejuez, Clinical Psychology, University of Maryland- College Park, College Park, MD
- 62 ADHD, conduct disorder, and initial physiological reactions to cigarettes and alcohol in female adolescents: Evidence for the link between ADHD and risk for tobacco use

  L. C. Bidwell<sup>1,2</sup>, R. Palmer<sup>1</sup>, A. C. Heath<sup>3</sup>, P. A. Madden<sup>3</sup>, K. K. Bucholz<sup>3</sup>, J. E. McGeary<sup>4,1</sup>,
  S. Kollins<sup>5</sup>, V. Knopik<sup>1</sup>, <sup>1</sup>Division of Behav Genetics, RI Hospital/Brown University,
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  <sup>3</sup>Psychiatry, Washington University School of Medicine, St Louis, MO, <sup>4</sup>Providence VA
  Medical Center, Providence, RI, <sup>5</sup>Psychiatry, Duke Medical Center, Raleigh-Durham, NC
- 63 Growth mixture models predicting early adult substance use from trajectories of inattention, impulsivity-hyperactivity, delinquency, and impairment

  A. Howard<sup>1</sup>, B. Molina<sup>2</sup>, K. Belendiuk<sup>2</sup>, A. Stehli<sup>3</sup>, &. MTA Co-operative Group<sup>2</sup>, <sup>1</sup>Psychology, University of North Carolina, Chapel Hill, NC, <sup>2</sup>Psychiatry, University of Pittsburgh Medical Center, Pittsburgh, PA, <sup>3</sup>University of California, Irvine, Irvine, CA

- 64 Negative emotional reactivity and substance use in adolescents diagnosed with ADHD S. C. Harty<sup>1</sup>, K. J. Derefinko<sup>2</sup>, C. A. Walther<sup>3</sup>, K. A. Belendiuk<sup>3</sup>, J. W. Cheong<sup>3</sup>, W. E. Pelham<sup>2</sup>, B. S. Molina<sup>1</sup>, <sup>1</sup>Psychiatry, University of Pittsburgh, Pittsburgh, PA, <sup>2</sup>Florida International University, Miami, FL, <sup>3</sup>Psychology, University of Pittsburgh, Pittsburgh, PA
- 65 Development of obesity and risk behaviors in adolescence
  D. Y. Huang¹, H. I. Lanza¹, K. Wright-Volel², M. D. Anglin¹, ¹Integrated Substance Abuse
  Programs, University of California, Los Angeles, LA, CA, ²School of Nursing, UCLA,
  LA, CA
- 66 Relationship between weight status and risky smoking behaviors in a national sample of adolescent females
  - K. Lange, S. Thamotharan, A. B. Taylor, S. Fields, Texas A&M University, Bryan, TX
- Psychosocial problems among truant youth: A multi-group, exploratory structural equation modeling analysis
   R. Briones Robinson<sup>1</sup>, R. Dembo<sup>1</sup>, K. B. Barrett<sup>1</sup>, K. C. Winters<sup>2</sup>, R. Ungaro<sup>1</sup>, L. M. Karas<sup>5</sup>, L. M. Gulledge<sup>3</sup>, S. Belenko<sup>4</sup>, <sup>1</sup>Criminology, University of South Florida, Tampa, FL, <sup>2</sup>Psychiatry, University of Minneapolis Medical School, Minneapolis, MN, <sup>3</sup>Criminal Justice, University of Southern Mississippi, Hattiesburg, MS, <sup>4</sup>Criminal Justice, Temple University,
- 68 Addiction risk in males and females: Higher-order item response theory modeling in the transmissible liability index

  L. Kirisci, M. Vanyukov, T. Ridenour, M. Reynolds, R. Tarter, School of Pharmacy, University

Philadelphia, PA, 513th Judicial District, Tampa, FL

- of Pittsburgh, PA

  69 Substance use, cumulative risk and promotive factors, psychological distress and dating violence
- among at-risk youth in the emergency department
  S. A. Stoddard<sup>1</sup>, M. Walton<sup>2</sup>, Q. Epstein-Ngo<sup>2</sup>, L. Whiteside<sup>3</sup>, S. Chermack<sup>2</sup>, M. Zimmerman<sup>1</sup>, F. Blow<sup>2</sup>, B. Booth<sup>4</sup>, R. Cunningham<sup>3</sup>, <sup>1</sup>Health Behavior and Health Education, University of Michigan, Ann Arbor, MI, <sup>2</sup>Psychiatry, University of Michigan, Ann Arbor, MI, <sup>3</sup>Emergency Medicine, University of Michigan, Ann Arbor, MI, <sup>4</sup>University of Arkansas for Medical Sciences, Little Rock, AR
- 70 Substance use patterns as an associated risk factor for high risk sexual behavior in adolescents K. Grabowski, S. Thamotharan, A. B. Taylor, S. Fields, Psychology, Texas A&M University, College Station, TX
- 71 Peer influences on adolescent substance use: The moderating role of parenting J. A. Simmons, R. E. Hommer, M. J. Crowley, L. C. Mayes, R. Sinha, T. M. Chaplin, Yale University School of Medicine, New Haven, CT
- 72 Living with substance-using parents and early marijuana initiation in illicit drug users
  P. M. Mauro<sup>1</sup>, R. C. Trenz<sup>2</sup>, W. W. Latimer<sup>3</sup>, <sup>1</sup>Mental Health, Johns Hopkins Bloomberg School
  of Public Health, Baltimore, MD, <sup>2</sup>Mercy College School of Social & Behavioral Sciences,
  Dobbs Ferry, NY, <sup>3</sup>Clinical and Health Psychology, University of Florida, Gainesville, FL
- 73 The effects of Brief Strategic Family Therapy on parent substance use and its impact on adolescent substance use
  - V. E. Horigian<sup>1</sup>, D. J. Feaster<sup>1</sup>, A. Brincks<sup>1</sup>, M. S. Robbins<sup>2,1</sup>, M. A. Perez<sup>1</sup>, J. Szapocznik<sup>1</sup>, <sup>1</sup>University of Miami Miller School of Medicine, Miami, FL, <sup>2</sup>Oregon Research Institute, Eugene, OR

- 74 Parent supply, parent factors and adolescent alcohol use: First results from a longitudinal Australian cohort
  - M. Wadolowski<sup>1</sup>, C. Bucello<sup>1</sup>, A. Aiken<sup>1</sup>, R. P. Mattick<sup>1</sup>, J. Najman<sup>2</sup>, K. Kypri<sup>3</sup>, T. Slade<sup>1</sup>, D. Hutchinson<sup>1</sup>, R. Bruno<sup>4</sup>, N. McBride<sup>5</sup>, <sup>1</sup>National Drug & Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia, <sup>2</sup>Queensland Alcohol & Drug Research and Education Centre, University of Queensland, Brisbane, QLD, Australia, <sup>3</sup>School of Medicine & Public Health, University of Newcastle, Newcastle, NSW, Australia, <sup>4</sup>School of Psychology, University of Tasmania, Sandy Bay, TAS, Australia, <sup>5</sup>National Drug Research Institute, Curtin University, Perth, WA, Australia
- C. Bucello<sup>1</sup>, M. Wadolowski<sup>1</sup>, A. Aiken<sup>1</sup>, R. Mattick<sup>1</sup>, J. Najman<sup>2</sup>, K. Kypri<sup>3</sup>, T. Slade<sup>1</sup>, D. Hutchinson<sup>1</sup>, R. Bruno<sup>4</sup>, N. McBride<sup>5</sup>, <sup>1</sup>National Drug & Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia, <sup>2</sup>Queensland Alcohol & Drug Research and Education Centre, University of Queensland, Brisbane, QLD, Australia, <sup>3</sup>School of Medicine & Public Health, University of Newcastle, Newcastle, NSW, Australia, <sup>4</sup>School of Psychology, University of Tasmania, Sandy Bay, TAS, Australia, <sup>5</sup>National Drug Research Institute, Curtin University, Perth, WA, Australia
- 76 Adolescent access to controlled medications and parental supervision
  P. L. Ross-Durow<sup>1</sup>, S. E. McCabe<sup>1,2</sup>, J. A. Cranford<sup>2</sup>, C. J. Boyd<sup>1,2</sup>, <sup>1</sup>Institute for Research on Women and Gender, University of Michigan, Ann Arbor, MI, <sup>2</sup>Substance Abuse Research Center, University of Michigan, Ann Arbor, MI
- 77 Gender differences in family factors associated with binge drinking
  C. R. Zuquetto, T. C. Amato, E. S. Opaleye, A. R. Noto, Departamento de Psicobiologia,
  Universidade Federal de Sao Paulo, Sao Paulo, Brazil

#### CRIMINAL JUSTICE I

- 78 Using technology to increase access to substance abuse treatment in prison
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  National Development & Research Institutes, New York, NY, ²Department of Psychiatry,
  Dartmouth Medical School, Hanover, NH
- 79 Criminal justice referral and incentives in outpatient substance abuse treatment
  A. DeFulio<sup>1</sup>, P. Nuzzo<sup>2</sup>, M. L. Stitzer<sup>1</sup>, <sup>1</sup>Johns Hopkins University School of Medicine,
  Baltimore, MD, <sup>2</sup>University of Kentucky, Lexington, KY
- 80 Using incentives to improve parolee enrollment and attendance in community treatment: Preliminary results
  - M. L. Prendergast, E. Hall, J. Grossman, UCLA, Los Angeles, CA
- 81 Drug use and problem severity of prisoners paroling to rural adjacent counties M. Webster, J. L. Duvall, M. Staton-Tindall, C. B. Oser, C. G. Leukefeld, Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY
- 82 Relationship between HIV testing following incarceration and participation in WaySafe W. E. Lehman, G. Rowan-Szal, N. Bartholomew, G. Joe, Institute of Behavioral Research, Texas Christian University, Fort Worth, TX
- 83 Gender differences in drug-related and sexual risk behaviors after release from prison I. A. Binswanger<sup>1,2</sup>, S. J. Min<sup>1</sup>, B. Beaty<sup>1</sup>, S. Mueller<sup>1</sup>, K. F. Corsi<sup>2</sup>, <sup>1</sup>Medicine, University of Colorado Denver, Aurora, CO, <sup>2</sup>Psychiatry, University of Colorado School of Medicine, Aurora, CO

- 84 Mediators of incarceration and sexual risk behaviors among adults in drug-involved relationships
  - B. Sarfo, N. El-bassel, E. Wu, School of Social Work, Columbia University, New York, NY
- Who is most at risk for HIV in community corrections?
  C. B. Clark, C. B. McCullumsmith, M. C. Waesche, S. L. Hardy, N. Katiyar, K. L. Cropsey, The University of Alabama at Birmingham, Birmingham, AL
- 86 Small village/large hell: Incarceration and gendered work in drug trafficking S. Campos, National Development and Research Institutes, New York, NY
- 87 Getting my "life on track": The effects of longterm partner incarceration on drug use patterns among African-American women
  - H. L. Cooper, D. Frye, Rollins School of Public Health, Atlanta, GA
- 88 The first 90 days following release from jail: Preliminary findings from the recovery management checkups for women offenders (RMCWO) experiment

  C. K. Scott<sup>1</sup>, M. L. Dennis<sup>2</sup>, <sup>1</sup>Lighthouse Institute, Chestnut Health Systems, Chicago, IL, <sup>2</sup>Lighthouse Institute, Chestnut Health Systems, Normal, IL
- 89 *Gender responsive and trauma informed treatment decreases PTSD among women offenders* N. P. Messina, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- The relationship between emotional and financial support and substance use: Examining immediate and long-term effects
  - K. L. Harp, C. Oser, Sociology, Univ of Kentucky, Lexington, KY
- 91 Risk factors for rapid time to relapse on cocaine in community corrections
  C. McCullumsmith<sup>1</sup>, C. B. Clark<sup>1</sup>, P. S. Hendricks<sup>1</sup>, M. A. Islam<sup>1</sup>, M. Stitzer<sup>2</sup>, R. M. Lawler<sup>1</sup>,
  K. L. Cropsey<sup>1</sup>, <sup>1</sup>UAB, Birmingham, AL, <sup>2</sup>John Hopkins University, Baltimore, MD
- 92 Temporal patterning of pathways into the criminal justice system of drug-abusing women V. C. Smith, National Development and Research Institute, Inc., New York, NY

#### PERINATAL DRUG EXPOSURE AND ABUSE

- 93 Let's talk about sex and the company that you keep
  D. L. Terrell, D. S. Svikis, G. Villalobos, Institute for Drug and Alcohol Studies, Virginia
  Commonwealth University, Richmond, VA
- 94 First steps in reducing health disparities in infant mortality and morbidity: Development of a screening tool to identify women likely to benefit from Health System Navigation
  S. Varner<sup>1</sup>, L. Keyser-Marcus<sup>1</sup>, S. Masho<sup>1</sup>, L. Safford<sup>1</sup>, G. Villalobos<sup>1</sup>, A. Laudet<sup>2</sup>, D. Svikis<sup>1</sup>,

  <sup>1</sup>AWHARE Program, Virginia Commonwealth University, Richmond, VA, <sup>2</sup>NDRI, NY, NY
- 95 Treating pregnant French polydrug-abusing women who fail to comply with substitution treatments: Is it cost-efficient?

  L. Gourarier<sup>1</sup>, L. Simmat Durand<sup>2</sup>, J. Jungman<sup>1</sup>, <sup>1</sup>CASAT, La Terrasse / Maison Blanche, Paris,
  - L. Gourarier<sup>1</sup>, L. Simmat Durand<sup>2</sup>, J. Jungman<sup>1</sup>, <sup>1</sup>CASAT, La Terrasse / Maison Blanche, Paris, France, <sup>2</sup>CERMES 3 équipe CESAMES, CNRS, INSERM, Université Paris Descartes, PARIS 6, France
- 96 Relapse to substance use in postpartum women

  A. Forray<sup>1</sup>, N. Gotman<sup>1</sup>, K. Yonkers<sup>1,2</sup>, <sup>1</sup>Psychiatry, Yale School of Medicine, New Haven, CT,

  <sup>2</sup>Obstetrics, Gynecology & Reproductive Sciences, Yale School of Medicine, New Haven, CT
- 97 Clinical and demographic characteristics associated with the use of opioid analgesics in pregnancy
  - M. V. Smith, N. Gotman, K. A. Yonkers, Psychiatry & Child Study, Yale School of Medicine, New Haven, CT

- 98 Efficacy of five weeks of escalating and fixed contingency management reinforcement on illicit drug use in opioid-dependent pregnant patients

  M. Hutchinson<sup>1</sup>, J. Leoutsakos<sup>1,2</sup>, M. Tuten<sup>1,2</sup>, H. Jones<sup>1,2,3</sup>, M. S. Chisolm<sup>1,2</sup>, <sup>1</sup>Johns Hopkins School of Medicine, Baltimore, MD, <sup>2</sup>Psychiatry and Behavioral Sciences, Johns Hopkins,
- Baltimore, MD, <sup>3</sup>RTI International, Research Triangle Park, NC

  99 Comparative effectiveness of methadone and buprenorphine for the treatment of opioid
- dependence during pregnancy: A retrospective cohort study

  S. H. Heil, A. M. Johnston, A. M. Crocker, J. S. Metayer, M. C. Meyer, University of Vermont, Burlington, VT
- 100 Substance use outcomes among pregnant and postpartum women in methadone maintenance C. Pace¹, D. M. Cheng², M. Winter², L. B. Kaminetzsky¹, J. Liebschutz¹,², J. H. Samet¹,², A. Y. Walley¹, ¹Boston University School of Medicine, Boston, MA, ²Boston University School of Public Health, Boston, MA
- 101 Pregnancy exposure to methadone: A population-based retrospective study on infant health outcome
  - H. Yeh<sup>1</sup>, S. Fang<sup>2</sup>, K. Chen<sup>1,2</sup>, L. Su<sup>3</sup>, C. Chen<sup>1</sup>, I. Ho<sup>4</sup>, C. Chen<sup>1,2</sup>, <sup>1</sup>Division of Mental Health & Addiction Medicine, National Health Research Institutes, Miaoli County, Taiwan, <sup>2</sup>Department of Public Health, National Yang-Ming University, Taipei City, Taiwan, <sup>3</sup>Department of Addiction Science, Taipei City Hospital, Taipei City, Taiwan, <sup>4</sup>Center of Addiction Medicine, China Medical University Hospital, Taichung City, Taiwan
- 102 Prenatal healthcare utilization among pregnant women in the Methadone Maintenance
   Treatment program in Taiwan
   K. Chen<sup>1,2</sup>, H. Yeh<sup>2</sup>, S. Fang<sup>1</sup>, C. Chen<sup>2</sup>, T. Lin<sup>3</sup>, I. Ho<sup>4</sup>, C. Chen<sup>1,2</sup>, <sup>1</sup>Institute of Public Health, National Yang-Ming University, Taipei, Taiwan, <sup>2</sup>Division of Mental Health & Addiction
   Medicine, National Health Research Institutes, Miaoli County, Taiwan, <sup>3</sup>Centers for Disease
   Control, Taipei, Taiwan, <sup>4</sup>Center of Addiction Medicine, China Medical University Hospital, Taichung, Taiwan
- 103 Effects of methadone administration during pregnancy on human placental efflux transporter Pgp
  I Paul S Patrikeeva T Nanovskava G D Hankins M S Ahmed OR/GVN Maternal Fetal
  - J. Paul, S. Patrikeeva, T. Nanovskaya, G. D. Hankins, M. S. Ahmed, OB/GYN Maternal Fetal Medicine, University of Texas Medical Branch, Galveston, TX
- 104 Carriers of the A1 allele of the D2 dopamine receptor gene have better outcomes in an incentive-based intervention for pregnant smokers
   Y. Washio¹, S. T. Higgins², S. C. Sigmon², D. W. Yandell⁴, J. M. Skelly⁵, I. M. Bernstein⁶, A. A. Lopez³, M. L. Lynch², J. D. Hanson², ¹Treatment Research Institute, Philadelphia, PA, ²Department of Psychiatry, University of Vermont, Burlington, VT, ³Department of Pathology & Laboratory Medicine, University of Vermont, Burlington, VT, ⁵Department of Medical Biostatistics, University of Vermont, Burlington, VT, ⁵Department of Obstetrics, Gynecology and
- 105 Characterizing the relationship between smoking status and breastfeeding among newly postpartum women

Reproductive Sciences, University of Vermont, Burlington, VT

- A. A. Lopez, S. T. Higgins, S. H. Heil, J. M. Skelly, M. E. Lynch, L. J. Solomon, I. M. Bernstein, University of Vermont, Burlington, VT
- 106 Smoking behaviors during pregnancy: Focus group findings from a public obstetrics clinic V. H. Coleman-Cowger<sup>1</sup>, M. Terplan<sup>2</sup>, <sup>1</sup>Chestnut Health Systems, Normal, IL, <sup>2</sup>University of Maryland School of Medicine, Baltimore, MD

- 107 Characterizing nicotine withdrawal in pregnant smokers
  E. Herrmann, S. Heil, S. Higgins, S. Sigmon, L. Solomon, I. Bernstein, Psychology,
  University of Vermont, Burlington, VT
- 108 Illicit drug use among pregnant women enrolled in treatment for cigarette smoking cessation D. E. Gaalema, S. T. Higgins, C. S. Pepin, S. H. Heil, I. M. Bernstein, University of Vermont, Burlington, VT
- 109 The relationship between pregnancy intention and perinatal cigarette smoking behavior: An analysis of PRAMS data
  - M. S. Chisolm<sup>1</sup>, D. Cheng<sup>2</sup>, M. Terplan<sup>3</sup>, <sup>1</sup>Johns Hopkins Bayview Medical Center, Baltimore, MD, <sup>2</sup>Maryland Department of Health and Mental Hygiene, Baltimore, MD, <sup>3</sup>University of Maryland, Baltimore, MD
- 110 The relationship between pregnancy intention and perinatal alcohol consumption: An analysis of PRAMS data
  - M. Terplan<sup>1</sup>, D. Cheng<sup>2</sup>, M. S. Chisolm<sup>3</sup>, <sup>1</sup>University of Maryland, Baltimore, MD, <sup>2</sup>Maryland Department of Health and Mental Hygiene, Baltimore, MD, <sup>3</sup>Johns Hopkins University, Baltimore, MD

#### **IMAGING**

- "Baby schema" response as a probe of caregiving deficits in drug-using mothers
  K. A. Young<sup>1</sup>, B. Worly<sup>2</sup>, T. Feeney<sup>1</sup>, R. Szucs-Reed<sup>1</sup>, S. C. Lam<sup>1</sup>, K. Jagannathan<sup>1</sup>,
  A. R. Childress<sup>1</sup>, D. D. Langleben<sup>1</sup>, <sup>1</sup>Perelman School of Medicine, University of
  Pennsylvania, Philadelphia, PA, <sup>2</sup>Thomas Jefferson University Hospital, Philadelphia, PA
- A machine learning approach for patient classification in cocaine addiction via SPECT images M. Mete<sup>1</sup>, B. Adinoff<sup>2,3</sup>, M. D. Devous<sup>2</sup>, J. S. Spence<sup>2</sup>, <sup>1</sup>Texas A&M Uni-Commerce, Commerce, TX, <sup>2</sup>UT Southwestern Medical Center, Dallas, TX, <sup>3</sup>VA North Texas Health Care System, Dallas, TX
- 113 Fronto-limbic connectivity during attempted affect regulation differentiates cocaine patients vs. controls
  - J. Suh<sup>1,2</sup>, T. Franklin<sup>1</sup>, K. Jagannathan<sup>1</sup>, R. Ehrman<sup>1,2</sup>, Y. Li<sup>1</sup>, Z. Wang<sup>1</sup>, R. Fabianski<sup>1</sup>, J. Shin<sup>1</sup>, Z. Singer<sup>1</sup>, K. Marquez<sup>1</sup>, C. P. O'Brien<sup>1,2</sup>, A. R. Childress<sup>1,2</sup>, <sup>1</sup>University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, <sup>2</sup>Philadelphia VAMC/MIRECC, Philadelphia, PA
- Adolescent substance users exhibit diminished interoceptive processing and elevated reward response to pleasant stimulation
   R. Migliorini<sup>1</sup>, J. L. Stewart<sup>1</sup>, A. C. May<sup>1</sup>, M. P. Paulus<sup>1,2</sup>, S. F. Tapert<sup>1,2</sup>, <sup>1</sup>Psychiatry, University of California, San Diego, La Jolla, CA, <sup>2</sup>Psychiatry Service, VA San Diego Healthcare System, La Jolla, CA
- 115 An fMRI study of self-regulatory control in cannabis-using youth
  G. Tau<sup>1</sup>, T. Torres-Sanchez<sup>1</sup>, B. Graniello<sup>1</sup>, G. Horga<sup>1</sup>, R. Angrand<sup>1</sup>, K. Randolph<sup>1</sup>, Z. Wang<sup>1</sup>,
  F. Levin<sup>2</sup>, B. Peterson<sup>1</sup>, <sup>1</sup>Child & Adolescent Psychiatry, Columbia University / New York State
  Psychiatric Institute, New York, NY, <sup>2</sup>Division on Substance Abuse, Columbia University /
  New York State Psychiatric Institute, New York, NY
- 116 Impaired Go-No Go performance associated with altered brain activation in chronic active cannabis users
  - G. R. King, R. Gonzales, T. Ernst, W. Deng, A. Stenger, L. Chang, Medicine, University of Hawaii, Honolulu, HI

- 117 Frontal cortex neurochemical alterations in methamphetamine-injected rats
  Y. H. Sung<sup>1,2</sup>, J. H. Son<sup>1</sup>, A. P. Prescot<sup>1,2</sup>, O. M. Abdullah<sup>1</sup>, E. K. Jeong<sup>1</sup>, K. A. Keefe<sup>1</sup>,
  P. F. Renshaw<sup>1,2,3</sup>, <sup>1</sup>University of Utah, SLC, UT, <sup>2</sup>Brain Institute, University of Utah, SLC, UT,
  <sup>3</sup>USTAR, SLC, UT
- 118 Synthesis and monoamine transporter binding affinity of enantiomeric hydroxylated 1-[2-[bis(4-fluorophenyl)methoxy]ethyl]-4-[3-(fluorophenyl)propyl]piperazines

  L. Hsin¹, L. Chang¹, Y. Chen¹, C. Dersch², R. Rothman², ¹Graduate Institute of Pharmaceutical Sciences, National Taiwan University, Taipei, Taiwan, ²Clinical Psychopharmacology Section, Chemical Biology Research Branch, NIDA, NIH, DHHS, Baltimore, MD
- 119 Resting state brain networks differ between nicotine-dependent smokers and non-smokers
  A. Janes, L. Nickerson, S. Richardt, B. Frederick, M. J. Kaufman, McLean Hospital/Harvard
  Medical School, Belmont, MA
- 120 Smoking olfactory and visual cues activate different brain regions as measured via BOLD fMRI S. B. Lowen, S. L. Farmer, L. H. Toto, S. E. Lukas, McLean Hospital/Harvard Medical School, Belmont, MA
- 121 An empirical spin history correction for motion effects in fMRI

  M. L. Rohan<sup>1</sup>, R. Yamamoto<sup>1</sup>, N. Goletiani<sup>1</sup>, D. Olson<sup>1</sup>, M. Peltier<sup>1</sup>, P. Renshaw<sup>2</sup>, N. Mello<sup>1</sup>,

  <sup>1</sup>Imaging Center, McLean Hospital, Belmont, MA, <sup>2</sup>Univ of Utah, Salt Lake City, UT
- Brain activation associated with attentional bias in smokers is modulated by a dopamine antagonist
   M. Luijten¹, D. J. Veltman², I. H. Franken¹, ¹Institute of Psychology, Erasmus University Rotterdam, Rotterdam, Netherlands, ²Department of Psychiatry, Amsterdam Institute for Addiction Research, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands
- Something feels different: Altered neural processing of aversive interoceptive stimuli in problem users vs. desisters
   A. L. Juavinett, J. L. Stewart, A. Shukla, M. P. Paulus, Psychiatry, University of California San Diego, La Jolla, CA
- 124 Concurrent use of methamphetamine and marijuana in adolescents show mild alterations in brain microstructure
   R. M. Gonzales, G. King, D. Alicata, C. Cloak, T. Ernst, L. Chang, University of Hawaii, Honolulu, HI
- 125 Risky and cautious decision processing: Girls with antisocial substance disorder
  T. J. Crowley<sup>1</sup>, M. S. Dalwani<sup>1</sup>, S. K. Mikulich-Gilbertson<sup>1</sup>, S. E. Young<sup>1</sup>, S. K. McWilliams<sup>1</sup>,
  K. M. Raymond<sup>1</sup>, M. T. Banich<sup>1,2</sup>, <sup>1</sup>University of Colorado Denver, Denver, CO, <sup>2</sup>University of Colorado Boulder, Boulder, CO
- Altered behavior and brain activity as a function of increasing working memory load in alcohol-dependent heavy drinkers
   M. J. Wesley, E. E. Shannon, L. J. Porrino, Physiology and Pharmacology, Wake Forest School of Medicine, Winston Salem, NC
- 127 In vivo detection of reduced GABA levels in adolescent chronic marijuana smokers
  A. P. Prescot, P. F. Renshaw, D. Yurgelun-Todd, Brain Institute, University of Utah, Salt Lake
  City, UT
- Abnormalities in the cingulate are correlated with age of onset of marijuana use in adolescents M. Lopez-Larson<sup>1,2</sup>, E. McGlade<sup>1,2</sup>, D. Yurgelun-Todd<sup>1,2</sup>, <sup>1</sup>The Brain Institute, University of Utah, Salt Lake City, UT, <sup>2</sup>VISN 19 MIRECC, Salt Lake City, UT

- 129 Regional reductions in brain myo-inositol levels are associated with cognitive impulsivity in marijuana-dependent young men: Preliminary evidence from MRSI at 4T

  Y. Mashhoon<sup>1</sup>, J. E. Jensen<sup>1</sup>, J. T. Sneider<sup>1</sup>, D. A. Yurgelun-Todd<sup>2</sup>, M. M. Silveri<sup>1</sup>, <sup>1</sup>McLean Imaging Center, McLean Hospital | Harvard Medical School, Belmont, MA, <sup>2</sup>The Brain Institute, University of Utah Medical School, Salt Lake City, UT
- 130 Clinical correlates of the insula in marijuana-using adolescents

  E. McGlade<sup>1,2</sup>, M. Lopez-Larson<sup>1,2</sup>, D. Yurgelun-Todd<sup>1,2</sup>, <sup>1</sup>The Brain Institute, University of Utah, Salt Lake City, UT, <sup>2</sup>VISN 19 MIRECC, Salt Lake City, UT

#### **CLUB DRUGS**

- 131 Problematic behavior and MDMA use among Japanese rave populations

  T. Shimane<sup>1</sup>, Y. Hidaka<sup>2</sup>, K. Wada<sup>1</sup>, M. Funada<sup>1</sup>, <sup>1</sup>Department of Drug Dependence Research,
  National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo,
  Japan, <sup>2</sup>Takarazuka University School of Nursing, Osaka, Japan
- 132 Ecstasy dependence: Is there evidence for this syndrome in frequent ecstasy consumers?

  R. Bruno¹, A. J. Matthews¹, L. Degenhardt², F. Shand³, L. Burns³, ¹School of Psychology,
  University of Tasmania, Hobart, TAS, Australia, ²Burnet Institute, Melbourne, VIC, Australia,
  ³National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW,
  Australia
- 133 Effect of ketamine on lower urinary tract signs and symptoms

  R. Pal<sup>1</sup>, S. Balt<sup>1</sup>, E. Erowid<sup>3</sup>, F. Erowid<sup>3</sup>, M. Baggott<sup>2</sup>, J. Mendelson<sup>1</sup>, G. P. Galloway<sup>1</sup>,

  <sup>1</sup>Addiction & Pharmacology Research Laboratory, California Pacific Medical Center Research Institute, San Francisco, CA, <sup>2</sup>Department of Psychiatry and Behavioral Neuroscience,

  University of Chicago, Chicago, IL, <sup>3</sup>Erowid Center, Grass Valley, CA
- 134 Use of MDMA and other synthetic stimulants monitored by wastewater analyses

  C. Chen<sup>1,3</sup>, C. Kostakis<sup>2</sup>, A. M. Camilleri<sup>2</sup>, P. D. Felgate<sup>2</sup>, R. J. Irvine<sup>1</sup>, J. M. White<sup>3</sup>, <sup>1</sup>Discipline of Pharmacology, University of Adelaide, Adelaide, SA, Australia, <sup>2</sup>Forensic Science South Australia, Adelaide, SA, Australia, <sup>3</sup>School of Pharmacy and Medical Sciences, University of South Australia, Adelaide, SA, Australia
- 135 Ketamine reduces negative affect: Results of a Web-based survey
  S. Balt<sup>1</sup>, M. Baggott<sup>3</sup>, E. Erowid<sup>2</sup>, F. Erowid<sup>2</sup>, J. Coyle<sup>1</sup>, J. Mendelson<sup>1</sup>, R. Pal<sup>1</sup>,
  G. P. Galloway<sup>1</sup>, <sup>1</sup>Addiction & Pharmacology Research Laboratory, California Pacific Medical Center Research Institute, San Francisco, CA, <sup>2</sup>Erowid Center, Grass Valley, CA, <sup>3</sup>Department of Psychiatry and Behavioral Neuroscience, University of Chicago, Chicago, IL
- MDMA impairs response to fluid intake in humans: A controlled study of hyponatremia mechanisms
   M. J. Baggott², J. R. Coyle³, G. P. Galloway¹, J. Mendelson¹, ¹Addiction & Pharmacology

Research Laboratory, California Pacific Medical Center Research Institute, San Francisco, CA, <sup>2</sup>Department of Psychiatry and Behavioral Neuroscience, University of Chicago, Chicago, IL, <sup>3</sup>University of California Berkeley, Berkeley, CA

137 Factors associated with unprotected sex in a sample of young club drug users

L. S. Remy¹, G. G. Pasa¹, T. M. Bastos¹, D. B. Bumaguin¹, H. Surrat², S. P. Kurtz²,

F. Pechansky¹, ¹Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, ²Center for Research on Substance Use & Health Disparities, Nova Southeastern University, Coral Gables, FL

- 138 Transactional sex and lifetime sexually transmitted diseases among drug users
  J. M. Reingle<sup>1</sup>, S. A. Staras<sup>5</sup>, J. Copeland<sup>3</sup>, H. Surratt<sup>4</sup>, W. Tsay<sup>2</sup>, L. B. Cottler<sup>1</sup>, <sup>1</sup>Department of Epidemiology, University of Florida, Gainesville, FL, <sup>2</sup>Department of Health, Taipei City, Taiwan, <sup>3</sup>University of NSW, Sydney, NSW, Australia, <sup>4</sup>Nova Southeastern University, Coral Gables, FL, <sup>5</sup>University of Florida, Gainesville, FL
- 139 Development, reliability, and validity of the Ecstasy Craving Questionnaire
  A. K. Davis, H. Rosenberg, Psychology, Bowling Green State University, Bowling Green, OH

#### AMPHETAMINES I

- 140 Years of stimulant use as a biobehavioral marker for methamphetamine dependence E. Pike<sup>2</sup>, K. R. Marks<sup>2</sup>, W. W. Stoops<sup>1,2</sup>, C. R. Rush<sup>1,2,3</sup>, <sup>1</sup>Behavioral Science, University of Kentucky, Lexington, KY, <sup>2</sup>Psychology, University of Kentucky, Lexington, KY, University of Kentucky, Lexington, KY
- 141 Acute d-amphetamine impairs memory retrieval at doses that enhance learning M. E. Ballard<sup>1</sup>, D. A. Gallo<sup>2</sup>, H. de Wit<sup>1</sup>, <sup>1</sup>Psychiatry and Behavioral Neuroscience, University of Chicago, Chicago, IL, <sup>2</sup>Psychology, University of Chicago, Chicago, IL
- 142 Moderate exercise improves methamphetamine users' performance on neurocognitive tests
  C. Canamar, J. Penate, J. Chudzynski, L. Mooney, R. Rawson, Semel Institute for
  Neuroscience and Human Behavior, University of California, Los Angeles, Los Angeles, CA
- 143 Methamphetamine facilitates reward conditioning in healthy volunteers

  L. M. Mayo<sup>1,2</sup>, D. Fraser<sup>3,4</sup>, R. Momenan<sup>3</sup>, D. W. Hommer<sup>3</sup>, M. Heilig<sup>3</sup>, H. de Wit<sup>1</sup>, <sup>1</sup>Committee on Neurobiology, University of Chicago, Chicago, IL, <sup>2</sup>Psychiatry and Behavioral Neuroscience, University of Chicago, Chicago, IL, <sup>3</sup>NIAA, Bethesda, MD, <sup>4</sup>Linkoping University, Linkoping, Sweden
- An investigation into the effects of methamphetamine in a South African sample using detailed neuropsychological testing and an fMRI reward task
   H. Gouse¹, S. Du Plessis³, M. Vink⁴, A. Carrico², J. A. Joska¹, ¹Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa, ²Psychiatry, University of California, San Francisco, San Francisco, CA, ³Psychiatry, University of Stellenbosch, Stellenbosch, South Africa, ⁴Psychiatry, Rudolf Magnus Institute of Neuroscience, University of Utrecht, Utrecht, Netherlands
- Longitudinal investigation of orbitofrontal and striatal morphology in adolescent methamphetamine abusers
   J. Churchwell, D. Yurgelun-Todd, Psychiatry, University of Utah, Salt Lake City, UT
- 146 Methamphetamine-dependent adults show attenuated brain response to pleasant interoceptive stimuli
  - A. C. May<sup>1</sup>, J. L. Stewart<sup>1</sup>, R. Migliorini<sup>1</sup>, S. F. Tapert<sup>1,2</sup>, M. P. Paulus<sup>1,2</sup>, <sup>1</sup>University of California at San Diego, La Jolla, CA, <sup>2</sup>Psychiatry Service, VA San Diego Healthcare System, La Jolla, CA
- 147 The ACE inhibitor perindopril may attenuate psychostimulant effects produced by methamphetamine in non-treatment-seeking, methamphetamine-dependent volunteers T. F. Newton<sup>1,2</sup>, R. De La Garza<sup>1,2</sup>, J. Mahoney<sup>1,2</sup>, Y. Omar<sup>1,2</sup>, C. Haile<sup>1,2</sup>, D. Shorter<sup>1,2</sup>, R. Hawkins<sup>1,2</sup>, C. Nerumalla<sup>1,2</sup>, <sup>1</sup>Psychiatry, Baylor College of Medicine, Houston, TX, <sup>2</sup>Michael E. DeBakey VAMC, Houston, TX
- 148 Aripiprazole does not alter methamphetamine self-administration
  F. P. Wagner<sup>1</sup>, J. A. Bennett<sup>1</sup>, W. W. Stoops<sup>1,2</sup>, J. A. Lile<sup>1</sup>, C. R. Rush<sup>1,2,3</sup>, <sup>1</sup>Behavioral Science,
  University of Kentucky, Lexington, KY, <sup>2</sup>Psychology, University of Kentucky, Lexington, KY,
  <sup>3</sup>Psychiatry, University of Kentucky, Lexington, KY

- 149 Pilot randomized trial of bupropion for methamphetamine abuse/dependence in adolescents K. G. Heinzerling<sup>1</sup>, J. Gadzhyan<sup>1</sup>, F. Rodriguez<sup>3</sup>, H. Van Oudheusden<sup>3</sup>, A. Swanson<sup>1</sup>, J. McCracken<sup>2</sup>, S. Shoptaw<sup>1,2</sup>, <sup>1</sup>Department of Family Medicine, UCLA, Los Angeles, CA, <sup>2</sup>Department of Psychiatry, UCLA, Los Angeles, CA, <sup>3</sup>Behavioral Health Services, Inc., Gardena, CA
- 150 Gender differences in response to bupropion in methamphetamine users
  M. Hinojosa<sup>1,2</sup>, R. De La Garza<sup>1,2</sup>, J. J. Mahoney<sup>1,2</sup>, A. Ho<sup>1,2</sup>, T. Newton<sup>1,2</sup>, <sup>1</sup>Baylor College of Medicine, Houston, TX, <sup>2</sup>Michael E. DeBakey VA Medical Center, Houston, TX
- 151 Gender does not influence neurocognitive performance in methamphetamine- and cocaine-dependent participants
   A. Kalechstein<sup>1,2</sup>, J. J. Mahoney<sup>1,2</sup>, M. Hinojosa<sup>1,2</sup>, R. Bennett<sup>1,2</sup>, R. Shah<sup>1,2</sup>, D. Croft<sup>1,2</sup>, T. Newton<sup>1,2</sup>, R. De La Garza<sup>1,2</sup>, <sup>1</sup>Baylor College of Medicine, Houston, TX, <sup>2</sup>Michael E. DeBakey VA Medical Center, Houston, TX
- 152 SBIRT for risky stimulant use in a Skid Row community health center

  L. Gelberg<sup>1,2</sup>, R. M. Andersen<sup>2</sup>, S. Shoptaw<sup>1</sup>, L. Arangua<sup>1</sup>, Y. Barth-Rogers<sup>1</sup>, M. Vahidi<sup>1</sup>,

  K. Singleton<sup>3</sup>, C. Arnold<sup>3</sup>, A. Bui<sup>3</sup>, B. D. Leake<sup>1</sup>, <sup>1</sup>Family Medicine, UCLA, Los Angeles, CA,

  <sup>2</sup>School of Public Health, UCLA, Los Angeles, CA, <sup>3</sup>Medical Imaging Informatics, UCLA,

  Los Angeles, CA

### Symposium III

Flores 4 1:00 - 3:00 PM

# EXERCISE AS A TREATMENT FOR DRUG DEPENDENCE IN HUMANS

Chairs: Richard De La Garza, II and Dace Svikis

- 1:00 Aerobic exercise for methamphetamine dependence: Effects on cognition and emotional tone Richard Rawson, Integrated Substance Abuse Programs, University of California Los Angeles, Los Angeles, CA
- 1:25 Contingency management for increasing exercise in substance abusers
  Carla Rash, University of Connecticut School of Medicine, Farmington, CT
- 1:50 Designing behavioral interventions to promote regular exercise in cocaine-dependent women Dace Svikis, AWHARE, Virginia Commonwealth University, Richmond, VA
- 2:15 Using exercise to treat stimulant use disorders: The Stimulant Reduction Intervention using Dosed Exercise (STRIDE) CTN-0037 Study

  Tracy L. Greer, University of Texas Southwestern Medical Center Dallas, TX
- 2:40 Exercise as a behavioral treatment for cocaine- and nicotine-dependence Richard De La Garza, II, Baylor College of Medicine, Houston, TX

### Symposium IV

Flores 5 1:00 - 2:00 PM

NOVEL METHODS FOR ASSESSING THE PREVALENCE OF DRUG USE AND DRUG-RELATED HARMS IN LARGE POPULATIONS AND LARGE-SCALE RESPONSES

Chairs: Alison Ritter and Jason White

1:00 Waste water drug analysis: Telling us something we don't already know Jason White, University of South Australia, Adelaide SA, SA, Australia

- 1:20 The Melbourne Interjecting Drug Use Cohort (MIX) and record linkage with hospital ED and inpatient databases
  - Paul Dietze, Alcohol and other Drug Research, Population Health, Burnet Institute, Melbourne, VIC, Australia
- 1:40 *A national planning model for drug and alcohol treatment in Australia: The brave new world?* Alison Ritter, University of New South Wales, Sydney, NSW, Australia

#### **Oral Communications 3**

Flores 5 2:15 - 3:15 PM

#### **MEDICAL MARIJUANA?**

Chair: Mary E. Abood

- 2:15 Medical marijuana use among adolescents in substance treatment
  S. Salomonsen-Sautel<sup>1</sup>, J. T. Sakai<sup>1</sup>, C. Thurstone<sup>2</sup>, R. Corley<sup>3</sup>, C. Hopfer<sup>1</sup>, <sup>1</sup>University of
  Colorado Anschutz Medical Campus, Aurora, CO, <sup>2</sup>Denver Health and Hospital Authority,
  Denver, CO, <sup>3</sup>University of Colorado Boulder, Boulder, CO
- 2:30 Substance use histories of adults seeking a medical marijuana card
  M. A. Ilgen<sup>1,2</sup>, A. S. Bohnert<sup>1,2</sup>, F. C. Blow<sup>1,2</sup>, <sup>1</sup>Psychiatry, University of Michigan, Ann
  Arbor, MI, <sup>2</sup>SMITREC, Ann Arbor VA HCS, Ann Arbor, MI
- 2:45 Correlates of marijuana use in African-American women: The impact of culturally relevant factors
  - E. L. Pullen, C. Oser, B. Perry, Department of Sociology, University of Kentucky, Lexington, KY
- 3:00 A novel therapeutic use of cannabinoids in transplant therapy
  R. R. Hartzell<sup>1,2</sup>, S. Jayarajan<sup>3</sup>, J. J. Meissler<sup>1,2</sup>, M. W. Adler<sup>1</sup>, T. K. Eisenstein<sup>1,2</sup>, <sup>1</sup>Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA, <sup>2</sup>Microbiology and Immunology, Temple University School of Medicine, Philadelphia, PA, <sup>3</sup>Surgery, Temple University Hospital, Philadelphia, PA

### **Oral Communications 4**

Flores 1-3 1:15 - 3:00 PM

#### ANIMAL MODELS OF STIMULANT ABUSE

Chairs: Laura E. O'Dell and Audrey M. Wells

- 1:15 Extended access to methamphetamine self-administration alters dopamine systems in rats
  J. Luevano<sup>1</sup>, J. A. Jackson<sup>2</sup>, M. Miranda<sup>1</sup>, K. L. Gosselink<sup>1</sup>, A. M. Khan<sup>1</sup>, C. E. Bond-D'Arcy<sup>1</sup>,
  L. E. O'Dell<sup>2</sup>, <sup>1</sup>Biological Sciences, University of Texas at El Paso, El Paso, TX, <sup>2</sup>Psychology,
  University of Texas at El Paso, El Paso, TX
- 1:30 Stimulation of serotonin-1B receptors attenuates cocaine-abuse-related behaviors following protracted withdrawal
  - N. S. Pentkowski, B. Harder, S. Brunwasser, R. Bastle, T. Der-Ghazarian, M. Adams, J. Alba, J. Neisewander, School of Life Sciences, Arizona State University, Tempe, AZ

- 1:45 Altered expression of  $\alpha 1$  and  $\alpha 2$  subunits of the GABAA receptor after long-term cocaine self-administration by rhesus monkeys
  - N. M. Shinday<sup>1,2</sup>, S. V. Westmoreland<sup>1</sup>, W. D. Yao<sup>1,2</sup>, J. K. Rowlett<sup>1,2</sup>, <sup>1</sup>Neuroscience, New England Primate Research Center-Harvard Medical School, Southborough, MA, <sup>2</sup>Neuroscience and Behavior, University of Massachusetts at Amherst, Amherst, MA
- 2:00 Increased histone acetylation strengthens the expression of cocaine-associated contextual memory
  - Y. Itzhak, K. L. Anderson, S. Liddie, University of Miami Miller School of Medicine, Miami, FL
- 2:15 Incubation effects of nicotine are differentially regulated by ERK activity in the prefrontal cortex and nucleus accumbens shell
  - D. H. Brunzell, L. E. Thompson, J. M. Lee, Pharmacology and Toxicology, Virginia Commonwealth University School of Medicine, Richmond, VA
- 2:30 Extracellular signal-related kinase in the basolateral amygdala, but not the nucleus accumbens core, is critical for the reconsolidation of cocaine memories that underlie instrumental cocaine seeking in rats
  - A. M. Wells, A. A. Arguello, X. Xie, H. C. Lasseter, A. M. Reittinger, R. A. Fuchs, Psychology, University of North Carolina, Chapel Hill, NC
- 2:45 Brief interventions with environmental enrichment for cocaine-cue extinction and relapse prevention: Evaluation of concept in rats
  - B. Áine. Nic Dhonnchadha<sup>1</sup>, J. M. Gautier<sup>1</sup>, R. D. Spealman<sup>2</sup>, H. Y. Man<sup>1</sup>, K. M. Kantak<sup>1</sup>, <sup>1</sup>Boston University, Boston, MA, <sup>2</sup>NEPRC, Harvard Medical School, Southborough, MA

### **Oral Communications 5**

Flores 6-8 1:00 - 3:00 PM

#### GENETICS: CRACKING THE ADDICTION CODE

Chairs: Gantt Galloway and Mark K. Greenwald

- 1:00 Functional genetic evolution of addiction: A new approach using comparative genetics for understanding drug dependence
  - E. J. Vallender, G. M. Miller, New England Primate Research Center, Harvard Medical School, Southborough, MA
- 1:15 A pharmacogenetic trial of naltrexone for methamphetamine dependence G. Galloway, K. Flower, J. Mulkey, K. Garrison, J. Mendelson, Addiction & Pharmacology Research Laboratory, California Pacific Medical Center Research Institute, San Francisco, CA
- 1:30 Identification of genetic variants of the HLA locus associated with response to a cocaine vaccine
  - D. A. Nielsen<sup>1</sup>, M. J. Harding<sup>1</sup>, S. C. Hamon<sup>2</sup>, J. Lindsay<sup>1</sup>, T. R. Kosten<sup>1</sup>, <sup>1</sup>Psychiatry, Baylor College of Medicine, Houston, TX, <sup>2</sup>Laboratory of Statistical Genetics, The Rockefeller University, New York, NY
- 1:45 A promoter variant in OPRK1 modulates stress-induced craving, brain activity and relapse in cocaine dependence
  - K. Xu<sup>1</sup>, D. Suo<sup>1</sup>, D. Goldman<sup>2</sup>, R. Sinha<sup>1</sup>, <sup>1</sup>Psychiatry, Yale University, New Haven, CT, <sup>2</sup>Laboratory of Neurogenetics, National Institute on Alcohol Abuse and Alcoholism, Rockville, MD

- 2:00 Mu- and kappa-receptor single nucleotide polymorphisms (SNPs) are associated with opioid use phenotypes in heroin-dependent volunteers
  - M. K. Greenwald<sup>1</sup>, D. M. Zohrob<sup>1</sup>, C. L. Steinmiller<sup>1</sup>, E. Sliwerska<sup>2</sup>, M. Burmeister<sup>2</sup>, <sup>1</sup>Psychiatry, Wayne State University, Detroit, MI, <sup>2</sup>University of Michigan, Ann Arbor, MI
- 2:15 *Individual differences in substance use as a function of DRD2 allele status*M. E. Patrick, S. Sigmon, K. Saulsgiver, S. Higgins, University of Vermont, Burlington, VT
- Variations of smoking trajectories from early adolescence into adulthood: The role of single nucleotide polymorphisms of nicotinic receptor and ADHD symptoms
   B. F. Fuemmeler<sup>1</sup>, C. Lee<sup>1</sup>, F. J. McClernon<sup>2</sup>, S. H. Kollins<sup>2</sup>, <sup>1</sup>Community & Family Medicine, Duke University Medical Center, Durham, NC, <sup>2</sup>Psychiatry, Duke University Medical Center, Durham, NC
- 2:45 Analysis of genetic effects and heritability of SNPs and their interactions in two ethnic populations for smoking dependence
   M. D. Li¹, Z. Zhu², Z. Zhu², J. Z. Ma³, T. J. Payne⁴, J. Zhu², ¹Psychiatry and Neurobehavioral Sciences, University of Virginia, Charlottesville, VA, ²Bioinformatics, Zhejiang University, Hangzhou, China, ³Public Health Sciences, University of Virginia, Charlottesville, VA, ⁴Otolaryngology and Communicative Sciences, University of Mississippi Medical Center, Jackson, MS

### Symposium V

Flores 5 3:30 - 5:30 PM

# DO WE UNDER-TREAT THE MOST PREVALENT FORM OF SUBSTANCE ABUSE AMONG PREGNANT WOMEN?

Chairs: Stephen T. Higgins and Jack Henningfield

- 3:30 Substance use of pregnant women and early neonatal morbidity: Where to focus intervention Igor Burstyn, Drexel University, Philadelphia, PA
- 3:55 Behavioral treatments for pregnant smokers: the need for more intensive and effective interventions
  - Sarah H. Heil, University of Vermont, Burlington, VT
- 4:20 Efficacy of pharmacological treatments for smoking during pregnancy Cheryl A. Oncken, University of Connecticut School of Medicine, Farmington, CT
- 4:45 Contrasting treatments for opioid versus nicotine dependence during pregnancy Hendree Jones, RTI International, Research Triangle Park, NC
- 5:10 *Discussant*Jack E. Henningfield, Pinney Associates and Johns Hopkins University School of Medicine,
  Bethesda, MD

### Symposium VI

Flores 4 3:30 - 4:30 PM

# CULTURALLY TAILORED TREATMENTS FOR RACIAL/ETHNIC MINORITY SUBSTANCE USERS

Chairs: Carmen L. Masson and Kathy Burlew

3:30 Community wise: A health intervention for individuals transitioning from incarceration into low-income African American communities

Liliane C. Windsor, Rutgers, The State University of New Jersey, New Brunswick, NJ

3:50 The development and pretest of Drum-Assisted Therapy for Native Americans (DARTNA): A drum therapy treatment protocol for American Indians/Alaska Natives with substance use disorders

Daniel Dickerson, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA

4:10 Evaluating a culturally adapted version of Real Men Are Safe (REMAS)

Donald Calsyn, Alcohol and Drug Abuse Institute, University of Washington, Seattle, WA

### **Oral Communications 6**

Flores 4 4:45 - 5:45 PM

# GYM RATS: PRECLINICAL MODELS OF EXERCISE-BASED TREATMENT

Chairs: Mark A. Smith and Marilyn E. Carroll

4:45 Sex differences in the effects of exercise on subsequent cocaine craving in rats

A. B. Peterson, W. J. Lynch, Psychiatry and Neurobehavioral Sciences, University of Virginia,
Charlottesville, VA

5:00 The effects of aerobic exercise on cocaine self-administration: Importance of temporal relationship between physical activity and initial drug exposure

M. A. Smith, M. A. Witte, Department of Psychology, Davidson College, Davidson, N.

M. A. Smith, M. A. Witte, Department of Psychology, Davidson College, Davidson, NC

5:15 Combined behavioral treatment (wheel running) and medication (progesterone) decrease stressand cue-induced cocaine seeking in female rats

N. Zlebnik, M. E. Carroll, Psychiatry, University of Minnesota, Minneapolis, MN

5:30 Sex differences in the effect of exercise during an abstinence period on subsequent nicotine seeking

V. Sanchez<sup>1</sup>, D. H. Brunzell<sup>2</sup>, W. J. Lynch<sup>1</sup>, <sup>1</sup>University of Virginia, Charlottesville, VA, <sup>2</sup>Virginia Commonwealth University, Richmond, VA

### **Oral Communications 7**

Flores 1-3 3:30 - 5:30 PM

#### TRANSMITTED INFECTIONS: HIV AND HEP C

Chairs: Michael Copenhaver and Jason J. Paris

- 3:30 *Methamphetamine self-administration in rats leads to increased systemic and neural inflammation* 
  - M. Mata<sup>1</sup>, S. M. Kousik<sup>2,3</sup>, T. C. Napier<sup>2,3</sup>, S. M. Graves<sup>2,3</sup>, F. Mahmood<sup>1</sup>, S. Raeisi<sup>1</sup>, L. L. Baum<sup>1</sup>, <sup>1</sup>Immunology/Microbiology, Rush University Medical Center, Chicago, IL, <sup>2</sup>Pharmacology, Rush University Medical Center, Chicago, IL, <sup>3</sup>Center for Compulsive Behavior and Addiction, Rush University Medical Center, Chicago, IL
- 3:45 Sex differences in neuropsychiatric and cocaine seeking behaviors among mice expressing HIV-1 Tat protein
  - J. J. Paris<sup>1</sup>, A. N. Carey<sup>2</sup>, J. P. McLaughlin<sup>1</sup>, <sup>1</sup>Torrey Pines Institute for Molecular Studies, Port St. Lucie, FL, <sup>2</sup>USDA-ARS Human Nutrition Research Center, Boston, MA
- 4:00 Are females who inject drugs more likely to become infected with HIV than males?

  S. Modi, D. C. Des Jarlais, J. Feelemyer, Baron Edmond de Rothschild Chemical Dependency Institute, Beth Israel Medical Center, New York, NY

- 4:15 HIV-1 molecular epidemiological profile differences among Taiwan drug abusers
  Y. Lan¹, Y. Yang¹, C. Hsin¹, Y. Hser², ¹Department of Health Risk Management, China Medical
  University, Taichung City, Taiwan, ²Integrated Substance Abuse Programs, University of
  California, Los Angeles, Los Angeles, CA
- 4:30 HIV risk behaviors by age group among prescription opiod abusers in South Florida C. O'Grady, S. Kurtz, H. Surratt, Center for Research on Substance Use and Health Disparities, NOVA Southeastern University, Coral Gables, FL
- 4:45 Hepatitis C infection in non-treatment-seeking heroin users: The burden of stimulant use P. Roux<sup>1,2</sup>, L. Fugon<sup>2</sup>, J. Jones<sup>1</sup>, S. Comer<sup>1</sup>, <sup>1</sup>SURC, Columbia University, New York, NY, <sup>2</sup>SE4S, INSERM, Marseilles, France
- 5:00 Text messaging reduces HIV risk behaviors among methamphetamine-using men who have sex with men
   C. J. Reback<sup>1,2</sup>, D. L. Grant<sup>1</sup>, J. B. Fletcher<sup>1</sup>, S. Shoptaw<sup>3</sup>, M. Charania<sup>4</sup>, G. Mansergh<sup>4</sup>,
   <sup>1</sup>Friends Research Institute, Los Angeles, CA, <sup>2</sup>Integrated Substance Abuse Programs, UCLA, Los Angeles, CA, <sup>3</sup>Department of Family Medicine, UCLA, Los Angeles, CA, <sup>4</sup>Centers for Disease Control and Prevention, Atlanta, GA
- 5:15 Testing an adapted evidence-based HIV prevention intervention in a drug treatment setting M. Copenhaver<sup>1,2</sup>, I. Lee<sup>3</sup>, I. Ezeabogu<sup>1,2</sup>, <sup>1</sup>Dept of Allied Health Sciences, University of Connecticut, Storrs, CT, <sup>2</sup>Center for Health, Intervention, & Prevention (CHIP), University of Connecticut, Storrs, CT, <sup>3</sup>Dept of Psychology, National Chengchi University, Taipei, Taiwan

#### **Oral Communications 8**

Flores 6-8 3:30 - 5:30 PM

#### SERVICES FOR THOSE WHO'VE SERVED

Chairs: Steven L. Batki and Elizabeth J. Santa Ana

- 3:30 Differential associations of biological vs. non-biological network member psychopathology on drug use disorders in Vietnam veterans and non-veterans: A 25-year longitudinal study S. Balan, H. J. Chen, G. Widner, R. K. Price, Washington University School of Medicine, St. Louis, MO
- 3:45 Communicable disease among veterans receiving care in the public-sector substance abuse treatment system in Los Angeles County

  K. C. Heslin¹, E. G. Guerrero², ¹VHA Emergency Management Evaluation Center, Veterans Health Administration (VHA), LA, CA, ²School of Social Work, University of Southern California, LA, CA
- 4:00 Unmet need for treatment of substance use disorders and serious psychological distress among veterans: A nationwide analysis using the NSDUH
   A. Golub, A. Bennett, P. Vazan, H. Liberty, National Development and Research Institutes, Inc, New York City, NY
- 4:15 Homeless women veterans, substance abuse, trauma, and psychosocial services
  A. Hamilton<sup>1,2</sup>, D. Washington<sup>1,2</sup>, <sup>1</sup>VA Greater Los Angeles Healthcare System, Los Angeles, CA, <sup>2</sup>UCLA, Los Angeles, CA
- 4:30 Chronic disease management for homeless veterans: The role of substance use and peer support S. Gabrielian<sup>1</sup>, A. Yuan<sup>1</sup>, R. Andersen<sup>2</sup>, R. Brown<sup>1</sup>, J. McGuire<sup>1</sup>, L. Rubenstein<sup>1,2</sup>, N. Sapir<sup>1</sup>, L. Gelberg<sup>1,2</sup>, <sup>1</sup>VA Greater Los Angeles, Los Angeles, CA, <sup>2</sup>UCLA, Los Angeles, CA

- 4:45 Effects of alcohol use on patient outcomes in veterans with mild TBI and/or mental disorders
  A. A. Herrold, J. Babcock-Parziale, W. High, B. Smith, C. Evans, K. Noblett, A. Urban,
  T. Pape, Research Service, Edward Hines Jr., VA Hospital, Hines, IL
- 5:00 Smoking and non-alcohol substance use in veterans with PTSD and alcohol dependence S. L. Batki<sup>1</sup>, B. A. Lasher<sup>2</sup>, E. Herbst<sup>2</sup>, S. Prathikanti<sup>2</sup>, T. Metzler<sup>2</sup>, T. Neylan<sup>1</sup>, A. Waldrop<sup>1</sup>, A. Heinz<sup>2</sup>, G. Tarasovsky<sup>2</sup>, <sup>1</sup>Psychiatry, University of California, San Francisco, San Francisco, CA, <sup>2</sup>San Francisco VA Medical Center, San Francisco, CA
- 5:15 Group motivational interviewing enhances treatment engagement in dually diagnosed veterans E. J. Santa Ana<sup>1,2</sup>, S. D. LaRowe<sup>1,2</sup>, L. S. Jamison<sup>1</sup>, <sup>1</sup>Medical University of South Carolina, Charleston, SC, <sup>2</sup>Charleston VAMC, Charleston, SC

### **Pre- and Post-Doc Networking Event**

La Casa

5:30 - 7:00 PM

Workshop V

Flores 5

8:00 - 10:00 PM

CAREER DEVELOPMENT: A PERSPECTIVE FROM JUNIOR AND SENIOR RESEARCHERS

Chairs: Gerald McLaughlin, Minna Liang and Scott Chen

Workshop VI

Flores 6-8

8:00 - 10:00 PM

18TH ANNUAL CONTINGENCY MANAGEMENT WORKING GROUP

Chairs: Kelly E. Dunn and Kathryn Saulsgiver

Workshop VII

Flores 4

8:00 - 10:00 PM

NON-MEDICAL PRESCRIPTION DRUG USE AMONG EMERGENCY DEPARTMENT AND TRAUMA PATIENTS

Chairs: Amy S. Bohnert and Lauren Whiteside

Recent non-medical prescription opioid use among adult patients at an inner-city emergency department

Amy S. Bohnert, University of Michigan, Ann Arbor, MI

Characteristics and correlates of past-year non-medical prescription drug use among adolescents and young adults seeking care in the emergency department Lauren Whiteside, University of Michigan, Ann Arbor, MI

Non-medical prescription drug use in the year following a trauma admission Craig A. Field, School of Social Work, University of Texas, Austin, TX

# **Workshop VIII**

Flores 1-3 8:00 - 10:00 PM

#### NIDA MEDICATIONS DEVELOPMENT WORKSHOP EARLY DRUG DEVELOPMENT: PREDICTING AND ASSESSING SAFETY

Chair: Jane B. Acri

Early preclinical drug development: What data (other than efficacy) are needed to determine whether a compound is a candidate?

Jane B. Acri, Division of Pharmacotherapies and Medical Consequences of Drug Abuse, NIDA/NIH, Bethesda, MD

Predictive safety profiling

David A. White, Division of Pharmacotherapies and Medical Consequences of Drug Abuse, NIDA/NIH, Bethesda, MD

Special safety studies for cocaine and methamphetamine therapeutics
Nathan M. Appel, Division of Pharmacotherapies and Medical Consequences of Drug Abuse,
NIDA/NIH, Bethesda, MD

#### **NIDA International Meeting Poster Session**

Capra 8:00 – 10:00 PM

Chair: Steven W. Gust

#### **Basic Science**

Effects of synthetic cannabinoids on the blood brain barrier

M. Agudelo, A. Yndart, M. Morrison, J. Napuri, T. Samikkannu, V.P. Reddy, M.P. Nair. Department of Immunology, Florida International University, United States

Tetrahydrocannabinol effect on SIVmac251 infection in Chinese macaques

Z. Chen<sup>1,2,3</sup>. <sup>1</sup>AIDS Institute Shenzhen Laboratory of Li Ka Shing Faculty of Medicine, The University of Hong Kong, China; <sup>2</sup>Institute of Laboratory Animal Science, Chinese Academy of Medical Sciences and Peking Union Medical College, China; <sup>3</sup>Department of Physiology, Health Sciences Center, Louisiana State University, United States

Role of 5-HT2A and NMDA receptors in serotonin (5HT) brain levels and 5HT-mediated responses produced by toluene

S.L. Cruz, M.T. Rivera-García, C. López-Rubalcava. Department of Pharmacobiology, Cinvestav, Mexico

Germline cannabis exposure leads to behavioral and glutamatergic abnormalities

G. Egervari<sup>1</sup>, H. Szutorisz<sup>2</sup>, J. DiNieri<sup>2</sup>, Y. Ren<sup>2</sup>, X. Liu<sup>3</sup>, L. Shen<sup>3</sup>, Y. Hurd<sup>1,2,3</sup>. <sup>1</sup>Department of Pharmacology and Systems Therapeutics, Mount Sinai School of Medicine, United States; <sup>2</sup>Department of Psychiatry, Mount Sinai School of Medicine, United States; <sup>3</sup>Department of Neuroscience, Mount Sinai School of Medicine, United States

Role of infralimbic cortex in the extinction of heroin seeking

H. Liu, Y. Wang, D. Zhuang, M. Lai, H. Zhu, W. Chen, W. Zhou. Laboratory of Behavioral Neuroscience, Ningbo Addiction Research and Treatment Center, School of Medicine, Ningbo University, Ningbo, China

Brain activation associated with attentional bias in smokers is modulated by a dopamine antagonist

M. Luijten<sup>1</sup>, D.J. Veltman<sup>2</sup>, I.H. Franken<sup>1</sup>. <sup>1</sup>Institute of Psychology, Erasmus University Rotterdam, The Netherlands; <sup>2</sup>Department of Psychiatry, Amsterdam Institute for Addiction Research, Academic Medical Center, University of Amsterdam, The Netherlands

ChemGPS as an evaluation tool of cannabinoid candidates for narcotic regulation

A. Persson<sup>1</sup>, J. Gottfries<sup>2</sup>, J. Rosén<sup>3</sup>. <sup>1</sup>Swedish National Institute of Public Health, Sweden;

<sup>2</sup>Medical Chemistry, Sweden; <sup>3</sup>Umetrics AB, Sweden

A critical role for protein degradation in the nucleus accumbens core in cocaine reward memory Z. Ren<sup>1,2</sup>, M.M. Liu<sup>2</sup>, Y.X. Xue<sup>2</sup>, Z.B. Ding<sup>2</sup>, L.F Xue<sup>2</sup>, S.D. Zhai<sup>1</sup>, L. Lu<sup>2</sup>. <sup>1</sup>Pharmacy Department, Peking University Third Hospital, China; <sup>2</sup>National Institute on Drug Dependence, Peking University, China

Analysis of cannabis seizures in New South Wales, Australia: Cannabinoid profile and implications

W. Swift<sup>1</sup>, I.S. McGregor<sup>2</sup>, J.C. Arnold<sup>3,4</sup>, K.M. Li<sup>3</sup>, A. Wong<sup>3</sup>. <sup>1</sup>National Drug and Alcohol Research Centre, University of New South Wales, Australia; <sup>2</sup>School of Psychology, University of Sydney, Australia; <sup>3</sup>Department of Pharmacology, University of Sydney, Australia; <sup>4</sup>Brain and Mind Research Institute, University of Sydney, Australia

Association of the delta-opioid receptor, OPRD1, with cocaine and opioid dependence M. Vaswani<sup>1,2</sup>, L.M. Ambrose-Lanci<sup>1</sup>, T.K. Clarke<sup>1</sup>, A. Zeng<sup>1</sup>, C. Yuan<sup>1</sup>, T.N. Ferraro<sup>1</sup>, K.M. Kampman<sup>3</sup>, C.A. Dackis<sup>3</sup>, H.M. Pettinati<sup>1,3</sup>, C.P. O'Brien<sup>3</sup>, F.W. Lohoff<sup>1</sup>, W.H. Berrettini<sup>1</sup>. 

<sup>1</sup>Center for Neurobiology and Behavior, Department of Psychiatry, University of Pennsylvania School of Medicine, United States; <sup>2</sup>All India Institute of Medical Sciences, India; <sup>3</sup>Treatment Research Center, Department of Psychiatry, University of Pennsylvania School of Medicine, United States

Effects of methamphetamine exposure on white matter in the developing brain

S. Yoon<sup>1,2</sup>, I.K. Lyoo<sup>1,2,3</sup>, T.S. Kim<sup>1,2</sup>, J. Hwang<sup>4</sup>, J.E. Kim<sup>5</sup>, S. Bae<sup>3</sup>, P.F. Renshaw<sup>2</sup>.

<sup>1</sup>Department of Psychiatry, the Catholic University of Korea, South Korea; <sup>2</sup>The Brain Institute, The University of Utah, United States; <sup>3</sup>Departments of Psychiatry and Interdisciplinary Program in Neuroscience, Seoul National University, South Korea; <sup>4</sup>Departments of Psychiatry, Soonchunhyang University College of Medicine, South Korea; <sup>5</sup>Department of Brain and Cognitive Science, Ewha Woman's University, South Korea

Interaction of HIV-1 Tat with methamphetamine in a unique small rodent model F. Zhao<sup>1</sup>, J.J. He<sup>2</sup>. <sup>1</sup>Shenzhen Third People's Hospital, China; <sup>2</sup>University of North Texas Health Science Center, United States

Pathways to the onset age of heroin use: A structural model approach exploring the influence of COMT gene, impulsivity, and childhood trauma in heroin-dependent patients
M. Zhao, T. Li, J. Du, S. Yu, H. Jiang, Y. Fu, D. Wang, H. Chen, H. Sun. Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, China

Chronic nicotine exposure affects the survival and reproductive capacity of adult zebrafish S.F. Zhao<sup>1</sup>, W.Y. Cui<sup>1</sup>, M.D. Li<sup>1,2</sup>. <sup>1</sup>State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, The First Affiliated Hospital, Zhejiang University, China; <sup>2</sup>Psychiatry and Neurobehavioral Sciences, University of Virginia, United States

Behavioral effects of cytisine in animal models of nicotine dependence

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### **Epidemiology**

Heart involvement in new legal high abusers in Bucharest, Romania
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Trends of use of tramadol and ecstasy among prescription drug users in Gaza (Palestinian Territories)

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Aboriginal mental health and patterns of substance use in British Columbia M. Al-Desouki<sup>1,2</sup>, A. Clarkson<sup>1</sup>, K. Li<sup>1</sup>, C.G. Schütz<sup>1</sup>, M. Krausz<sup>1</sup>. <sup>1</sup>Department of Psychiatry, University of British Columbia, Canada; <sup>2</sup>Department of Psychiatry, King Saud University, Saudi Arabia

Development and progress of a community epidemiology workgroup in Iraq
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Tobacco use among youth in the Northwestern Federal District of the Russian Federation N. Antonova, L. Tsvetkova. Department of Psychology, St. Petersburg State University, Russia

Health warning labeling practices on waterpipe (narghile) tobacco products and accessories in Kurdistan, Iraq

R. Aqrawi, S. Sadik. Ministry of Health, Iraq

Needs assessment of female drug users and spouses of male drug users in Burma (Myanmar)
T.M. Aung. Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University,
United States

Differential associations of biological vs. non-biological network member psychopathology on drug use disorders in Vietnam veterans and non-veterans: A 25-year longitudinal study S. Balan, H. J. Chen, G. Widner, R. K. Price. Washington University School of Medicine, St. Louis, United States

Methamphetamine use and diagnosed sexually transmitted diseases/HIV in the community: United States, 2005–2009

D. Blitchtein-Winicki<sup>1,2</sup>, D.P. Barondess<sup>2</sup>, J.P Troost<sup>2</sup>, J.C. Anthony<sup>2</sup>. <sup>1</sup>Universidad Peruana Cayetano Heredia, Peru; <sup>2</sup>Michigan State University, United States

Comparison of Jamaican male adolescent cannabis users' and nonusers' performance on tests of memory

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Risk assessment of the use of new psychoactive substances (new substances with psychoactive potential) among children and young people in Romania, 2011

A. Botescu<sup>1</sup>, V. Pop<sup>2</sup>, G. Apolzan<sup>3</sup>, V. Simionov<sup>3</sup>, I. Tomuş<sup>3</sup>. <sup>1</sup>Romanian National Antidrug Agency, Romania; <sup>2</sup>Child Protection Programmes and Health, Romania; <sup>3</sup>Romanian Harm Reduction Network, Romania

Who are the consumers of emerging psychoactive substances? A typology of Australian ecstasy and related drug users

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Popularity of legal highs depends on the national illicit drug market situation T.M. Brunt, R.J.M. Niesink. Drug Information and Monitoring System, Netherlands Institute of Mental Health and Addiction, The Netherlands

Monitoring emerging drugs in Australia

L. Burns. National Drug and Alcohol Research Centre, Australia

*Use transition between illegal drugs among Brazilian university students* 

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Alcohol to intoxication predicts high-risk behavior among prescription opioid dependents: Interim analyses from a cross-sectional study in Sikkim, North East India

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Inhalant abuse and dependence among adolescent inhalant users in the United States S. Chalil, P. Alexandre, B. Mancha. Hubert H. Humphrey Fellowship Program, Bloomberg School of Public Health, Johns Hopkins University, United States

Anticipating the future and adapting to change: The role of the Recreational Drugs European Network

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Binge use of amphetamine-type stimulants and exposure to violence among a cohort of women engaged in sex work in Cambodia

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<sup>1</sup>University of California San Francisco, United States; <sup>2</sup>National Institute for HIV, AIDS, Dermatology and STDs, Cambodia; <sup>3</sup>Cambodian Women's Development Agency, Cambodia; <sup>4</sup>National Centre for HIV Epidemiology and Clinical Research, University of New South Wales, Australia; <sup>5</sup>Young Women's Health Study Collaborative, University of California San Francisco, United States

Tobacco use and coca leaf chewing among males and females in Peru's rural highlands' population, 2008

V. Cruz<sup>1,2</sup>, D. Barondess<sup>1</sup>, E. Macher<sup>2</sup>, J. Saavedra<sup>2,3</sup>, J.C. Anthony<sup>1,4</sup>. <sup>1</sup>Department of Epidemiology, Michigan State University, United States; <sup>2</sup>Office of Epidemiology, Peruvian National Institute of Mental Health, Peru; <sup>3</sup>Department of Psychiatry, Universidad Peruana Cayetano Heredia, Peru; <sup>4</sup>School of Public Health, Universidad Peruana Cayetano Heredia, Peru

Prevalence of drug use among drivers who drank in alcohol outlets of Porto Alegre, Brazil R. De Boni<sup>1,3</sup>, F. Pechansky<sup>1</sup>, P.N. Silva<sup>2</sup>, M. de Vasconcellos<sup>2</sup>, F.I.Bastos<sup>3</sup>. <sup>1</sup>Universidade Federal do Rio Grande do Sul, Brazil; <sup>2</sup>Escola Nacional de Ciências Estatísticas, Brazil; <sup>3</sup>Fundação Oswaldo Cruz, Brazil

Abstinence rates from a smoking cessation program in Florianopolis, Brazil

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Should burden of disease estimates include cannabis use as a risk factor for psychosis?

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Youth substance abuse in Bhutan: A challenge to the pursuit of gross national happiness
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Johns Hopkins University, United States

Text messages as a new tool for indirect estimates of emerging patterns of drugs of abuse H. Ekhtiari<sup>1,2</sup>, A. Yoonessi<sup>1,3</sup>, A. Mokri<sup>1</sup>. <sup>1</sup>Iranian National Center for Addiction Studies, Tehran University of Medical Sciences, Iran; <sup>2</sup>Institute for Cognitive Science Studies, Iran; <sup>3</sup>School of Advanced Medical Technologies, Tehran University of Medical Sciences, Iran

Pattern of psychoactive substance use among university students in a south-south zonal community in Nigeria

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Cannabis misuse among schizophrenic patients in Morocco

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Patterns of tobacco use among Arab Americans in the Richmond, Virgina, metropolitan area O. El Shahawy<sup>1,2</sup>, L. Haddad<sup>3,4</sup>. <sup>1</sup>General Medical Management, Ain Shams University, Egypt; <sup>2</sup>Social and Behavioral Health Department, Virginia Commonwealth University, United States; <sup>3</sup>Institute for Drug and Alcohol Studies, Virginia Commonwealth University, United States; <sup>4</sup>School of Nursing, Virginia Commonwealth University, United States

Risk factors and prevalence of substance use among street children in western Kenya

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Subjective perception of drug users and family and community members about drug use in Pando (Uruguay)

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Patterns of use of new synthetic drugs in a sample of research chemical users in Spain M. Farré<sup>1</sup>, D. González<sup>1</sup>, M. Ventura<sup>2</sup>, F. Caudevilla<sup>3</sup>, M. Torrens<sup>4</sup>. <sup>1</sup>Hospital del Mar Research Institute, Universitat Autónoma de Barcelona, Spain; <sup>2</sup>Energy Control, Spain; <sup>3</sup>Puerta Bonita Health Center, Spain; <sup>4</sup>Hospital del Mar, Universitat Autónoma de Barcelona, Spain

Differences between DSM-IV diagnostic orphans and abusers among adolescent alcohol and cannabis users

S. Fernandez-Artamendi, J.R. Fernandez-Hermida, R. Secades-Villa, C. Lopez-Nuñez, S. Weidberg-Lopez, O. Garcia-Rodriguez. Addictive Behaviors Research Group, Department of Psychology, University of Oviedo, Spain

Early cannabis use and educational trajectories: Epidemiological evidence from 16 countries of the World Mental Health Survey Consortium

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Psychiatric comorbidity in clients in residential drug treatment in Colombia J.C. Varon Forero<sup>1</sup>, A.M. Bueno Ramirez<sup>1</sup>, Z. Espinel<sup>1,2</sup>, J.A. Aldas Gracia<sup>1</sup>, C.B. McCoy<sup>2</sup>, J.M. Shultz<sup>2</sup>. <sup>1</sup>Clinica Montserrat, Instituto Colombiano del Sistema Nervioso, Colombia; <sup>2</sup>Miller School of Medicine, University of Miami, United States

The European Monitoring Centre for Drugs and Drug Addiction early-warning system on new psychoactive substances

A. Gallegos, R. Sedefov. European Monitoring Centre for Drugs and Drug Addiction, Portugal

Correlates of HIV sex risk behavior in women in U.S. drug treatment programs: National Institute on Drug Abuse, Clinical Trials Network trial results

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Investigating gambling and substance use behaviors: Does one's religious faith play a differential role?

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Workforce development in Vietnam: Vietnam HIV-Addiction Technology Transfer Center L.M. Giang<sup>1</sup>, R. Rawson<sup>2</sup>, T. Freese<sup>2</sup>, K. Jeter<sup>2</sup>, K. Mulvey<sup>3</sup>. <sup>1</sup>Hanoi Medical University, Vietnam; <sup>2</sup>Integrated Substance Abuse Programs, University of California Los Angeles, United States; <sup>3</sup>President's Emergency Plan for AIDS Relief, Substance Abuse and Mental Health Services Administration, United States Embassy-Hanoi, Vietnam

Monitoring deaths by tobacco use: A Brazilian gender perspective for direct gender-sensitive prevention policies

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Predictors of receiving drug or alcohol treatment among adolescents who use inhalants E. Haan, B.E. Mancha, P.K. Alexandre. Hubert H. Humphrey Fellowship Program, Bloomberg School of Public Health, Johns Hopkins University, United States

European School Survey Project on Alcohol and Other Drugs—Kosovo Country Report T. Halimi, M. Haskuka. NGO "Fodacioni Together Kosova," Kosovo

Gender comparisons of drug abuse treatment outcomes among AAPI
Y. Han<sup>1</sup>, V. Lin<sup>1</sup>, Y. Hser<sup>1</sup>. Integrated Substance Abuse Programs, University of California,
Los Angeles, United States

If cannabis causes schizophrenia, how many cannabis users may need to be prevented in order to prevent one case of schizophrenia? United Kingdom case study

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Co-occurring substance misuse in clients presenting to a psychiatric unit in a general hospital in Jamaica

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Social and family relationships of postpartum women crack users ascertained through the Addiction Severity Index-6—preliminary data

M.B. Jaeger, G. Pasa, F.M. Driemeier, G.B. Cunha, P. Duarte, F. Kessler, F. Pechansky. Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, and Hospital de Clinicas of Porto Alegre, Brazil

Protective factors for substance abuse and sexual risk behaviors among Kampala street children R. Kasirye. Uganda Youth Development Link, Uganda; Hubert H. Humphrey Fellowship Program, Institute for Drug and Alcohol Studies, Virginia Commonwealth University, United States

Brazilian crack users seeking treatment show high prevalence of legal and psychosocial problems

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Changes in trends of the abuse of designer drugs and their legal status in Japan R. Kikura-Hanajiri, N. Uchiyama, M. Kawamura, Y. Goda. National Institute of Health Sciences, Japan

Misuse of fentanyl in Germany

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Prevalence of chronic conditions and impact on functioning among persons in addiction recovery in the United States and Australia

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Prevalence of club drugs among Taiwan high school adolescents
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Reducing HIV transmission with a methadone maintenance treatment program in Ruili, China Z. Li, W. Liu. Center for Disease Control of Ruili City, China

Drug use among students and its relationship with maltreatment during childhood, in seven universities in Latin America and the Caribbean

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Marijuana production in the plurinational state of Bolivia

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Nonmedical use of prescription drugs among school adolescents in Bogotá, Colombia C. Lopez-Quintero, Y. Neumark. Braun School of Public Health, Hebrew University-Hadassah, Israel

Tobacco consumption during pregnancy in two different socioeconomic status populations from Uruguay

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*Tobacco abuse among students in Kenyan universities* 

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Synthetic cannabinoid and cathinone exposures reported to Texas poison centers and toxicology laboratories

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Intimate partner violence and risky sexual behaviors among Iranian women with substance use disorders

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Inhalant use and academic performance among adolescents in the 2010 National Survey on Drug Use and Health

T. Mmolawa, P.K. Alexandre, B.E. Mancha. Hubert H. Humphrey Fellowship Program, Bloomberg School of Public Health, Johns Hopkins University, United States

The impact of a postconflict situation on drug use: A study from Kosovo D. Muqaj. NGO Labyrinth, Kosovo

Relationship between past experience of stressful life events and post-traumatic stress disorder and substance abuse in adolescence

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Drug-dependent patients and long-term health outcomes after 25 years of observation: The experience of a tertiary hospital-based unit in Badalona, Spain

R. Muga, A. Sanvisens, I. Rivas, D. Fuster, C. Tural, C. Rey-Joly, J. Tor. Hospital Universitari Germans Trias i Pujol, Spain

"Bakalao Route": Techno-dance culture and generalized synthetic drug consumption in Spain (1980–1990). Any legacy?

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Nonmedical prescription drug use among school adolescents in Israel
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Psychiatric symptoms and risky behaviors among methadone patients in Jakarta
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RSKO Jakarta, Indonesia; <sup>2</sup>Addiction and AIDS Research Center, Indonesia; <sup>3</sup>University of
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Use of substances and prescription medications among working class females in Lagos, Nigeria C.C. Okonkwo<sup>1</sup>, F.A. Jinadu<sup>1</sup>, R.A. Lawal<sup>1</sup>, B. Ola<sup>2</sup>, M.O. Gabriel<sup>1</sup>, O.A. Akinola<sup>1</sup>. <sup>1</sup>Federal Neuropsychiatric Hospital, Nigeria; <sup>2</sup>Lagos State University Teaching Hospital, Nigeria

Online survey on drug use in the college student population of the Universidad Evangélica de El Salvador

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Over the counter but out of reach: Barriers to syringe sales at pharmacies in Tijuana, Mexico R. Pollini<sup>1</sup>, M. Gallardo<sup>2</sup>, S. Ruiz<sup>3</sup>, P. Case<sup>4</sup>, N. Zaller<sup>5</sup>, R. Lozada<sup>2</sup>. <sup>1</sup>Pacific Institute for Research and Evaluation, United States; <sup>2</sup>Patronato Pro-COMUSIDA, Mexico; <sup>3</sup>Division of Global Public Health, University of California San Diego, United States; <sup>4</sup>Fenway Health-Massachusetts, United States; <sup>5</sup>Division of Infectious Diseases, The Miriam Hospital, United States

Inhalant use is associated with major depression among adolescents

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Colombia: Nexus of armed conflict, heroin, and HIV

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Substance use service development in Iraq

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Risk perception and ecstasy use in Peruvian university students, 2009

F. Toscano Rodriguez, F. Salazar. Universidad Peruana Cayetano Heredia, Perú

Prevalence of drug use among patients of NASF psychologists in the western area of Rio de Janeiro

P. Augusto de Andrade Rodrigues. Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States

Changing patterns in the use of homemade drugs in Voronezh, Russia

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Peers, monitoring, and externalizing behavior associated with severity of adolescent marijuana use

S.R. Ryan, C. Stanger, A.J. Budney. University of Arkansas for Medical Sciences, United States

Characteristics associated with recurring driving under the influence offenses in a state in Brazil A.R. Schmitz<sup>1,2,3</sup>, V. Gonçalves<sup>1,2</sup>, J.R. Goldim<sup>2,3</sup>, F.J. Zabala<sup>2</sup>, T. Sousa<sup>2</sup>, F. Pechansky<sup>1,2</sup>.

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From "designer drugs" to "legal highs"—concepts and definitions
R. Sedefov, A. Gallegos, P. Griffiths, L. Vandam. European Monitoring Centre for Drugs and Drug Addiction, Portugal

Synthetic cannabinoid intoxication cases in Italy: Analytical findings
G. Serpelloni<sup>1</sup>, T. Macchia<sup>2</sup>, C. Rimondo<sup>3</sup>, C. Seri<sup>3</sup>, C. Locatelli<sup>4</sup>, D. Lonati<sup>4</sup>, P. Papa<sup>5</sup>.

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Maternal use of smokeless tobacco, cigarettes, and waterpipes associated with infant mortality in Cambodia

P.N. Singh<sup>1</sup>, D. Yel<sup>2</sup>, J. Job<sup>3</sup>, C. Eng<sup>3</sup>, P. Sophonneary<sup>4</sup>, K. Kanal<sup>4</sup>. <sup>1</sup>Center for Health Research, Loma Linda University, School of Public Health, United States; <sup>2</sup> Tobacco Free Initiative, World Health Organization, Cambodia; <sup>3</sup>Department of Epidemiology, Loma Linda University School of Public Health, United States; <sup>4</sup>National Center for Maternal and Child Health, Ministry of Health, Cambodia

Emerging drug in Ukraine: "Crocodile" desomorphine
P. Smyrnov, S. Tatyana. International HIV/AIDS Alliance, Ukraine

Amphetamine-type stimulant use among youth in Burma (Myanmar)

Z.N. Soe. United Nations Office on Drugs and Crime, Burma (Myanmar)

Type of drug use and violence: Is there an association?
P.R. Telles-Dias, B.G. Cruz. State University of Rio de Janeiro/NEPAD, Brazil

Coordinated responses to an HIV outbreak in Greece and beyond

L. Wiessing<sup>1</sup>, S.R. Friedman<sup>2</sup>, D. Paraskevis<sup>3</sup>, G. Nikolopoulos<sup>4</sup>, A. Botescu<sup>5</sup>, M. Mardarescu<sup>6</sup>, A. Abagiu<sup>7</sup>, M. Terzidou<sup>8</sup>, A. Fotiou<sup>8</sup>, M. Salminen<sup>9</sup>, A. Pharris<sup>9</sup>, J. Mounteney<sup>1</sup>, M. van de Laar<sup>9</sup>, J. Vicente<sup>1</sup>, J. Kremastinou<sup>4</sup>, M. Malliori<sup>10</sup>, A. Hatzakis<sup>3</sup>. <sup>1</sup>European Monitoring Centre for Drugs and Drug Addiction, Portugal; <sup>2</sup>National Development and Research Institutes, Inc., United States; <sup>3</sup>Athens University Medical School, Greece; <sup>4</sup>Hellenic Centre for Disease Control and Prevention, Greece; <sup>5</sup>Romanian Reitox Focal Point, Romanian National Antidrug Agency, Romania; <sup>6</sup>National Institute of Infectious Diseases, Romania; <sup>7</sup>National Institute for Infectious Diseases "Prof. cDr. Matei Bals," Romania; <sup>8</sup>Greek Reitox Focal Point, University Mental Health Research Institute, Greece; <sup>9</sup>European Centre for Disease Prevention and Control, Sweden; <sup>10</sup>Greek Organization Against Drugs, Greece

Amphetamine-type drug injectors in post-Communist Eurasia: Different drugs, different behaviors, different interventions?

T. Zabransky<sup>1</sup>, R. Booth<sup>2</sup>, K. Dumchev<sup>3</sup>, D. Otiashvili<sup>4</sup>, B. Janikova<sup>1</sup>, I. Kirtadze<sup>4</sup>, O. Zeziulin<sup>5</sup>, K. Grohmannova<sup>1</sup>, G. Kamkamidze<sup>6</sup>. <sup>1</sup>Centre for Addictology, Charles University in Prague, Czech Republic; <sup>2</sup>Health Sciences Center, University of Colorado, United States; <sup>3</sup>World Health Organization Country Office, Ukraine; <sup>4</sup>Addiction Research Center, Alternative Georgia, Georgia; <sup>5</sup>Vinnitsa Regional Narcological Dispensary, Ukraine; <sup>6</sup>Georgian Maternal and Child Care Union, Georgia

Differences between opioid, stimulant, and mixed users in three countries of Eastern Europe
O. Zeziulin<sup>1</sup>, R. Booth<sup>2</sup>, K. Dumchev<sup>3</sup>, T. Zabransky<sup>4</sup>, David Otiashvili<sup>5</sup>, J. Schumacher<sup>6</sup>.

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<sup>5</sup>Addiction Research Center, Union Alternative Georgia, Georgia; <sup>6</sup>Division of Preventive Medicine, University of Alabama at Birmingham, United States

Application of the Drug User Quality of Life Scale in Australia
C. Zubaran<sup>1,2</sup>, K. Foresti<sup>2</sup>, R. Sud<sup>1</sup>, J. Emerson<sup>1</sup>, E. Zolfaghari<sup>1</sup>. <sup>1</sup>University of Western Sydney, Australia; <sup>2</sup>Western Sydney Local Health District, Australia

### Other

An open access research guide to drug and alcohol studies: Supporting information needs in developing nations

N. Bryant<sup>1</sup>, K. Brady<sup>2</sup>. <sup>1</sup>James Branch Cabell Library, Virginia Commonwealth University, United States; <sup>2</sup>Tompkins McCaw Library for the Health Sciences, Virginia Commonwealth University, United States

Improving communication on drug trends and interventions through teaching F.T.A. Buisman-Pijlman. School of Medical Sciences, The University of Adelaide, Australia

2011–2012 Hubert H. Humphrey Fellowship Program at Virginia Commonwealth University J.R. Koch, R.L. Balster, A. Breland, M.E. Loos, C.A. Thomas. Institute for Drug and Alcohol Studies, Virginia Commonwealth University, United States

Virginia Commonwealth University Hubert H. Humphrey Fellowship in Substance Abuse Prevention, Treatment, and Policy: One-year follow-up assessment

L. Leonchuk<sup>1,2</sup>, J.R. Koch<sup>2</sup>, R.L. Balster<sup>2</sup>, A. Breland<sup>2</sup>. <sup>1</sup>North Carolina State University, United States; <sup>2</sup>Institute for Drug and Alcohol Studies, Virginia Commonwealth University, United States

International Society of Addiction Journal Editors Writing Mentoring Program
P. Miller. Center for Drug and Alcohol Programs, Medical University of South Carolina,
United States

Thailand's pre-importing notifications of narcotic medicine

P. Pramokchon. Hubert H. Humphrey Fellowship, Virginia Commonwealth University, U.S.

Monitoring and controlling emerging synthetic designer drugs

M.D. Walker, C. Prioleau, T. Boos, L. Wong, S. Tella. Drug Enforcement Administration, Office of Diversion Control, United States

### **Prevention**

A cotinine urinalysis-based evaluation of the reliability of self-reported tobacco use among psychiatric patients

Y.P.S. Balhara, R. Jain, A.S. Sundar, R. Sagar. Lady Hardinge Medical College and Smt. Sucheta Kriplani Hospital, India

How do macrosocial changes shape HIV risk among drug users? Implications for HIV prevention and intervention

M.C. Chang. University at Albany, United States

Adolescent cannabis use: Does personality modify the impact of parental involvement?

H. Creemers<sup>1</sup>, P. van Lier<sup>1</sup>, L. Keijsers<sup>2</sup>, W. Meeus<sup>2</sup>, H. Koot<sup>1</sup>, A. Huizink<sup>1,3</sup>. <sup>1</sup>Department of Developmental Psychology, VU University Amsterdam, The Netherlands; <sup>2</sup>Research Centre Adolescent Development, Utrecht University, The Netherlands, <sup>3</sup>Behavioral Science Institute, Radboud University Nijmegen, The Netherlands

Salvia divinorum: Recreational use and legal status in France

S. Djezzar<sup>1</sup>, L. de Haro<sup>2</sup>, M.A. Courné<sup>3</sup>, R. Garnier<sup>1,4</sup>, The Addictovigilance and Toxicovigilance Networks<sup>1</sup>. <sup>1</sup>Centre of Evaluation, Information on Pharmacodependence and Addictovigilance-Paris, France; <sup>2</sup>Poison and Toxicovigilance Centre-Marseille, France; <sup>3</sup>French Health Products Agency, France; <sup>4</sup>Poison and Toxicovigilance Centre-Paris, France

A mixed-methods approach to identifying factors related to voluntary HIV testing among injection drug users in Shanghai, China

J. Du<sup>1</sup>, Y.Y. Meng<sup>2</sup>, M. Zhao<sup>1</sup>. <sup>1</sup>Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, China; <sup>2</sup>Center for Health Policy Research, University of California Los Angeles, United States

Screening, Brief Intervention, and Referral to Treatment for risky stimulant use in a skid row community health center

L. Gelberg<sup>1,2</sup>, R.M. Andersen<sup>2</sup>, S. Shoptaw<sup>1</sup>, L. Arangua<sup>1</sup>, Y. Barth-Rogers<sup>1</sup>, M. Vahidi<sup>1</sup>, K. Singleton<sup>3</sup>, C. Arnold<sup>3</sup>, A. Bui<sup>3</sup>, B.D. Leake<sup>1</sup>. <sup>1</sup>Department of Family Medicine, University of California Los Angeles, United States; <sup>2</sup>School of Public Health, University of California Los Angeles, United States; <sup>3</sup>Medical Imaging Informatics, University of California Los Angeles, United States

Trends in tobacco, cigarette, and waterpipe use among Arab Americans in the Richmond, Virginia, metropolitan area

L. Haddad, O. El Shahawy. Virginia Commonwealth University, United States

- Helping teen mothers recover from drug vulnerabilities: Kampala experience M. Nabasumba. Uganda Youth Development Link, Uganda
- Development of a crack dependence severity scale: First psychometric evaluation A.C. Peuker<sup>1,2</sup>, F. Kessler<sup>1</sup>, S. Faller<sup>1</sup>, F. Pechansky<sup>1</sup>, D. Bandeira<sup>2</sup>. <sup>1</sup>Center for Drug and Alcohol Research, Brazil; <sup>2</sup> Institute of Psychology, Universidade Federal do Rio Grande do Sul, Brazil
- Psychiatric symptoms and cocaine use in nonheterosexual club drug users

  L. Remy<sup>1</sup>, T. Bastos<sup>1</sup>, D. Benzano<sup>1</sup>, H.L. Surratt<sup>2</sup>, S.P. Kurtz<sup>2</sup>, F. Pechansky<sup>1</sup>. <sup>1</sup>Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Brazil; <sup>2</sup>Nova Southeastern University, United States

Development and evaluation of an evidence-based substance abuse prevention program for adolescents in Ukraine

V. Ryabukha. United Nations Development Programme, Ukraine

Parental bonding and childhood trauma in a sample of inpatient crack users

A.O. Sordi<sup>1</sup>, S. Hauck<sup>2</sup>, F. Kessler<sup>1,2</sup>, L.V. Diemen<sup>1,2</sup>, F. Pechansky<sup>1,2</sup>. <sup>1</sup>Centre for Alcohol and Drug Research, Federal University of Rio Grande do Sul, Brazil; <sup>2</sup>Hospital of Clinics of Porto Alegre, Brazil

Program of long-term follow-up for injection drug users with high risk of HIV

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<sup>2</sup>The Biomedical Center, St. Petersburg, Russia

Does cannabis use impact HIV drug and sex risk behaviors—a Russian perspective
A. Tyurina<sup>1</sup>, E. Krupitsky<sup>1</sup>, D.M. Cheng<sup>2</sup>, S.M. Coleman<sup>2</sup>, A.Y. Walley<sup>2</sup>, C. Bridden<sup>2</sup>, E. Zvartau<sup>1</sup>, J.H. Samet<sup>2</sup>. <sup>1</sup>St. Petersburg Pavlov State Medical University, Russia; <sup>2</sup>Boston University, Boston Medical Center, United States

Early environments of children born to mothers who use methamphetamine: A comparison of two cultures

T.A. Wouldes<sup>1</sup>, L.L. LaGasse<sup>2</sup>, C. Derauf<sup>3</sup>, E. Newman<sup>4</sup>, L.M. Smith<sup>5</sup>, R. Shah<sup>6</sup>, A.M. Arria<sup>7</sup>, S. Della Grotta<sup>2</sup>, T. Wilcox<sup>2</sup>, B.M. Lester<sup>2</sup>. <sup>1</sup>Department of Psychological Medicine, University of Auckland, New Zealand; <sup>2</sup>Brown Center for the Study of Children at Risk, Warren Alpert Medical School, Brown University, United States; <sup>3</sup>Community Pediatric and Adolescent Medicine, University of Minnesota Medical School, United States; <sup>4</sup>Department of Psychology, The University of Tulsa, United States; <sup>5</sup>Los Angeles Biomedical Institute at Harbor, UCLA Medical Center and David Geffen School of Medicine, University of California Los Angeles, United States; <sup>6</sup>Blank Hospital Regional Child Protection Center-Iowa Health, United States; <sup>7</sup>Center for Substance Abuse Research, University of Maryland College Park, United States

### **Treatment**

Buprenorphine-naloxone in routine care: Retention, acceptance, and tolerance S.M. Apelt<sup>1</sup>, N. Scherbaum<sup>2</sup>, K. Weckbecker<sup>3</sup>, M. Backmund<sup>4</sup>, J. Gölz<sup>5</sup>, M. Soyka<sup>6,7</sup>.

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Outcome assessment of a triangular clinic as a harm reduction intervention in Rajaee-Shahr Prison, Iran

R.T. Asl<sup>1</sup>, B. Eshrati<sup>2</sup>, C.A. Dell<sup>3</sup>, K. Taylor<sup>4</sup>, P. Afshar<sup>5</sup>, M. Kamali<sup>6</sup>, A. Mirzazadeh<sup>1</sup>. 
<sup>1</sup>World Health Organization, Iran; <sup>2</sup>Arak University of Medical Science, Iran; <sup>3</sup>Department of Sociology and School of Public Health, University of Saskatchewan, Canada; <sup>4</sup>University of Calgary Medical School, Canada; <sup>5</sup>Ministry of Welfare, Iran; <sup>6</sup>Iran University of Medical Science, Iran

Differences in pretreatment characteristics and health disparities at intake and 3 months among Asian subgroups

V. K. Belur, M.L. Ives, M.L. Dennis. Chestnut Health Systems, United States

Occult hepatitis B among in-treatment noninjecting drug abusers in west central Mexico
O. Campollo<sup>1</sup>, S. Roman<sup>1</sup>, A. Panduro<sup>1</sup>, G. Hernandez<sup>1</sup>, L. Diaz-Barriga<sup>2</sup>, J.K. Cunningham<sup>3</sup>.

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Amphetamine-type stimulant abuse adversely affects buprenorphine maintenance treatment in Malaysia

M.C. Chawarski<sup>1</sup>, M. Mazlan<sup>2</sup>, R. Schottenfeld<sup>1</sup>. <sup>1</sup>Yale University School of Medicine, United States; <sup>2</sup>Substance Abuse Research Center-Muar, Malaysia

Betel nut chewing improved impulsive error in a high-target-ratio attentional test S.T. Chen<sup>1,2</sup>, T.W. Shen<sup>2</sup>, M.Y. Li<sup>1</sup>, S.J. Chen<sup>3</sup>, H.H. Chen<sup>2</sup>. <sup>1</sup>Buddhist Tzu-Chi General Hospital, Taiwan; <sup>2</sup>Buddhist Tzu-Chi University, Taiwan; <sup>3</sup>Yuli Mental Research Center, Department of Psychiatry, Yuli Veteran Hospital, Taiwan

Twelve-month outcomes of monitoring and evaluation study on buprenorphine and methadone maintenance programs

V. Chtenguelov<sup>1</sup>, S. Dvoriak<sup>1</sup>, G. Prib<sup>1</sup>, O. Shtengelov<sup>2</sup>. <sup>1</sup>Ukrainian Institute on Public Health Policy, Ukraine; <sup>2</sup>City Polyclinic #5, Ukraine

Primary health care physicians' attitudes and experiences of interventions for cannabis use disorder

J. Copeland, P. Gstes, M. Norberg. National Cannabis Prevention and Information Centre, University of New South Wales, Australia

Cannabis, intellectual functioning, and brain structure in first-episode psychosis

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Does substance use affect quality of life? Factors associated with quality of life in alcohol-dependent and alcohol- and cocaine-dependent patients

C. Denis, K. Kampman, H. Pettinati, C. O'Brien. Treatment Research Center, University of Pennsylvania, United States

### Recovery in Ghana

E. Dordoye. Hubert H. Humphrey Fellowship Program, Bloomberg School of Public Health, Johns Hopkins University, United States

Retention in Ukrainian opioid substitution therapy programs and associated factors K. Dumchev<sup>1</sup>, Y. Kobyshcha<sup>1</sup>, I. Veretko<sup>2</sup>, L. Vlasenko<sup>3</sup>, S. Dolbilova<sup>4</sup>. <sup>1</sup>World Health Organization Country Office, Ukraine; <sup>2</sup>Vinnitsya Regional Narcological Dispensary, Ukraine; <sup>3</sup>Clinton Health Access Initiative, Ukraine; <sup>4</sup>Psychoneurological Dispensary of Kriviy Rih, Ukraine

Methadone maintenance and HIV risk in Ukraine

S. Dvoriak<sup>1,2</sup>, G. Woody<sup>2</sup>, J. Schumacher<sup>3</sup>, A. Pecoraroi<sup>2</sup>. <sup>1</sup>Ukrainian Institute on Public Health Policy, Ukraine; <sup>2</sup>University of Pennsylvania, United States; <sup>3</sup>University of Alabama-Birmingham, United States

High prevalence of psychiatric symptoms and reported social impairment related to crack use among Brazilian crack patients

S. Faller, F. Pechansky, A.C. Peuker, A.R. Stolf, F. Kessler. Center for Drug and Alcohol Research, Brazil

ALDH5A1 variability in opioid addicts and response to methadone treatment
F. Fonseca<sup>1</sup>, M. Gratacòs<sup>2</sup>, G. Escaramís<sup>2</sup>, R. De Cid<sup>2,3</sup>, R. Martín-Santos<sup>4</sup>, Xavier
Estivill<sup>2,3,5</sup>, M. Torrens<sup>1,6</sup>. <sup>1</sup>Hospital del Mar, Spain; <sup>2</sup>CIBER Epidemiología y Salud Pública,
Genes and Disease Program, Spain; <sup>3</sup>National Center of Genotyping, Center for Genomic
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Clinic, Spain; <sup>5</sup>Pompeu Fabra University, Spain; <sup>6</sup>Autonomous University of Barcelona,
Spain

Chronic disease management for homeless veterans: Tmhe role of substance use and peer support

S. Gabrielian, A. Yuan, R. Anderson, R. Brown, J. McGuire, L. Rubenstein, N. Sapir, L. Gelberg. Veterans Administration of Greater Los Angeles, University of California, Los Angeles, United States

Incentives are effective across cocaine-dependent outpatients with different economic resources G. García-Fernández<sup>1</sup>, E. Peña Suárez<sup>2</sup>, R. Secades-Villa<sup>2</sup>, E. Sánchez-Hervás<sup>3</sup>, O. García-Rodríguez<sup>2</sup>, S. Fernández-Artamendi<sup>2</sup>, J.R. Fernández-Hermid<sup>1,2</sup>. <sup>1</sup>University Complutense of Madrid, Spain; <sup>2</sup>University of Oviedo, Spain; <sup>3</sup>Catarroja Addictive Behaviors Unit, Valencia Regional Health Department, Spain

An investigation into the effects of methamphetamine in a South African sample using detailed neuropsychological testing and a functional magnetic resonance imaging reward task H. Gouse<sup>1</sup>, S. Du Plessis<sup>2</sup>, M. Vink<sup>3</sup>, A. Carrico<sup>4</sup>, J.A. Joska<sup>1</sup>. <sup>1</sup>Department of Psychiatry and Mental Health, University of Cape Town, South Africa; <sup>2</sup>Department of Psychiatry, University of Stellenbosch, South Africa; <sup>3</sup>Department of Psychiatry, Rudolf Magnus Institute of Neuroscience, University of Utrecht, The Netherlands; <sup>4</sup>Department of Psychiatry, University of California San Francisco, United States

A simple gas chromatography procedure for estimation of toluene-based inhalants in urine samples

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Application and efficacy of contingency management in methadone maintenance treatment among heroin-dependent patients in China: A randomzed controlled trial study

H. Jiang¹, J. Du¹, F. Wu², Z. Wang¹, S. Pan¹, Z. Li¹, Y. Hser², M. Zhao¹. ¹Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, China; ²University of California Los Angeles, United States

Evaluation of the effectiveness of overdose response training in New York City
J.D. Jones<sup>1</sup>, P. Roux<sup>1,2</sup>, S. Stancliff<sup>3</sup>, W. Matthews<sup>3</sup>, S.D. Comer<sup>1</sup>. <sup>1</sup>Division on Substance
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Physicians and Surgeons, United States; <sup>2</sup>Institut National de la Santé et de la Recherche
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Development of drug counseling for co-occurring heroin and amphetamine-type stimulant abuse V. Kasinather<sup>1</sup>, M. Chawarski<sup>2</sup>, M. Mazlan<sup>3</sup>, R. Schottenfeld<sup>2</sup>. <sup>1</sup>Center for Drug Research, Universiti Sains, Malaysia; <sup>2</sup>Yale University School of Medicine, United States; <sup>3</sup>Substance Abuse Research Center-Muar, Malaysia

Barriers to enrollment in HIV care among HIV-positive people who inject drugs in Odessa, Ukraine

T. Kiriazova<sup>1,2</sup>, O. Neduzhko<sup>2,3</sup>, O. Postnov<sup>3</sup>, I. Perehinets<sup>4</sup>. <sup>1</sup>Future Without AIDS Foundation, Ukraine; <sup>2</sup>Ukrainian Institute on Public Health Policy, Ukraine; <sup>3</sup>Ukrainian I.I. Mechnikov Anti-Plague Research Institute, Ukraine; <sup>4</sup>World Health Organization, Ukraine

A formative study of drug-using women in Georgia—setting the stage for a randomized controlled trial

I. Kirtadze<sup>1</sup>, D. Otiashvili<sup>1</sup>, K. O'Grady<sup>2</sup>, W. Zule<sup>3</sup>, E. Krupitsky<sup>4</sup>, W. Wechsberg<sup>3</sup>, H. Jones<sup>3</sup>. <sup>1</sup>Addiction Research Center, Alternative Georgia, Georgia; <sup>2</sup>Department of Psychology, University of Maryland College Park, United States; <sup>3</sup>RTI International, United States; <sup>4</sup>Department of Addictions, Bekhterev Research Psychoneurological Institute, Russia

Psychosocial interventions for problem alcohol use in illicit drug users (Cochrane Review)
J. Klimas<sup>1,2</sup>, C.A. Field<sup>2</sup>, W. Cullen<sup>1</sup>, C.S.M. O'Gorman<sup>1</sup>, L.G. Glynn<sup>3</sup>, E. Keenan<sup>4</sup>, J.
Saunders<sup>5</sup>, G. Bury<sup>2</sup>, C. Dunne<sup>1</sup>. <sup>1</sup>Faculty of Education and Health Sciences, University of Limerick, Ireland; <sup>2</sup>School of Medicine and Medical Science, University College Dublin, Ireland; <sup>3</sup>Department of General Practice, National University of Ireland, Ireland; <sup>4</sup>Addiction Services, Health Service Executive, Ireland; <sup>5</sup>Statistical Consulting Unit, Applied Biostatistics Consulting Centre, University of Limerick, Ireland

Naltrexone for opioid dependence: Oral, implantable, and injectable
E.M. Krupitsky<sup>1,2</sup>, E. Zvartau<sup>1</sup>, E. Blokhina<sup>1</sup>, E. Verbitskaya<sup>1</sup>, G.E. Woody<sup>3</sup>. <sup>1</sup>Laboratory of Clinical Pharmacology of Addictions, Pavlov State Medical University, Russia; <sup>2</sup>Department of Addictions, St. Petersburg Bekhterev Research Psychoneurological Institute, Russia; <sup>3</sup>Department of Psychiatry, University of Pennsylvania, United States

Substance abuse rehabilitation program for minor offenders in the criminal justice system of Sri Lanka

L. Kulathilake. Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States

Differences in cigarette smoking behaviors among heroin inhalers versus heroin injectors S. Liu, W. Zhou, J. Zhang, Q. Wang, J. Xu, D. Gui. Ningbo Addiction Research and Treatment Center, China

Initial intervention for adolescents with smoking-related pathology: Assessment of its effectiveness

B. Lobodov<sup>1</sup>, L. Dmitrienko<sup>2</sup>. <sup>1</sup>Medical Center Semya, Russia; <sup>2</sup>Municipal Outpatient Center #8, Russia

Attentional bias modification: Can this technique help smokers to stop smoking?

F.M. Lopes, A. Pires, L. Bizarro. Laboratory of Experimental Psychology, Neurosciences, and Behavior, Universidade Federal do Rio Grande do Sul, Brazil

Evaluation of community-based relapse prevention effects on retention of abstinence-based and spiritually based recovered addicts

M. Maarefvand<sup>1</sup>, M. Eghlima<sup>1</sup>, H. Rafiey<sup>1</sup>, M. Rahgozar<sup>1</sup>, N. Tadayyon<sup>2</sup>, A.Deilami-Zadeh<sup>3</sup>, H. Ekhtiari<sup>4</sup>. <sup>1</sup>University of Social Welfare and Rehabilitation, Iran; <sup>2</sup>Avaye Ordibehesht Institute, Iran; <sup>3</sup>Rebirth Charity, Iran; <sup>4</sup>Iranian Institute for Cognitive Sciences Studies, Iran

Methamphetamine facilitates reward conditioning in healthy volunteers

L.M. Mayo<sup>1,2</sup>, D. Fraser<sup>3,4</sup>, R. Momenan<sup>3</sup>, D.W. Hommer<sup>3</sup>, M. Heilig<sup>3</sup>, H. de Wit<sup>2</sup>. 
<sup>1</sup>Committee on Neurobiology, University of Chicago, United States; <sup>2</sup>Committee on Psychiatry and Behavioral Neuroscience, University of Chicago, United States; <sup>3</sup>National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, United States; <sup>4</sup>Linkoping University, Sweden

Methadone maintenance treatment program for drug abuse prisoners in Iran S. Momtazi<sup>1,2</sup>, R. Rawson<sup>1</sup>, N. Musavinasab<sup>2</sup>, M.B. Mamzehlu<sup>3</sup>. <sup>1</sup>Integrated Substance Abuse Programs, University of California Los Angeles, United States; <sup>2</sup>Zanjan University of Medical Sciences, Iran; <sup>3</sup>Zanjan Prison Health Center, Iran

Opioid use and retention outcomes following 16 weeks of buprenorphine for prescription opioid and heroin users

S. Nielsen, M. Hillhouse, L. Mooney, W. Ling. Integrated Substance Abuse Programs, University of California Los Angeles, United States

Policy and program barriers for drug-using women to access treatment services in the Republic of Georgia

D. Otiashvili<sup>1</sup>, I. Kirtadze<sup>1</sup>, K. O'Grady<sup>2</sup>, W. Zule<sup>3</sup>, E. Krupitsky<sup>4</sup>, W. Wechsberg<sup>3</sup>, H. Jones<sup>3</sup>. <sup>1</sup>Addiction Research Center, Alternative Georgia, Georgia; <sup>2</sup>Department of Psychology, University of Maryland College Park, United States; <sup>3</sup>RTI International, United States; <sup>4</sup>Department of Addictions, Bekhterev Research Psychoneurological Institute, Russia

Patterns of alcohol use and severity in patients with cocaine abuse and cocaine dependence A. Pascale<sup>1,2</sup>, A. Usher<sup>2</sup>, C. Lopez<sup>2</sup>, D. Svikis<sup>3</sup>. <sup>1</sup>School of Medicine, Uruguay; <sup>2</sup>Grupo de Cavia Outpatient Treatment Program, Uruguay; <sup>3</sup>Virginia Commonwealth University, United States

Substance use, depression, and punishment beliefs among lost-to-care and engaged HIV patients in St. Petersburg, Russian Federation

A. Pecoraro<sup>1,2</sup>, G. Woody<sup>1,2</sup>, M. Mimiaga<sup>3,4</sup>, C. O'Cleirigh<sup>3,5</sup>, E. Blokhina<sup>6</sup>, E. Verbitskaya<sup>6</sup>, E. Krupitsky<sup>6</sup>. <sup>1</sup>Perelman School of Medicine, University of Pennsylvania, United States; <sup>2</sup>Clinical Trials Network-Delaware Valley Node, United States; <sup>3</sup>Harvard Medical School, United States; <sup>4</sup>Harvard School of Public Health, United States; <sup>5</sup>Massachusetts General Hospital, United States; <sup>6</sup>Pavlov State Medical University, Russia

Barriers for treatment leading to relapse after discharge: A qualitative study with male and female inpatient crack users

R.S. Pedroso, F. Kessler, F. Pechansky. Center for Drug and Alcohol Research, Universidade Federal do Rio Grande do Sul, Brazil; Hospital de Clinicas de Porto Alegre, Brazil

Dose adjustment during induction phase and first-month retention among patients receiving methadone maintenance treatment in Kunming, Yunnan

C. Peng, Y. Chang, Y. Hser. Integrated Substance Abuse Programs, University of California Los Angeles, United States

Toward development of a system of service quality measures for substance abuse treatment centers—assessing current practices regarding client data collection and ways to improve Z. Petersen<sup>1</sup>, B. Myers<sup>1</sup>, R. Kader<sup>1</sup>, J.R. Koch<sup>2</sup>, R. Manderscheid<sup>3</sup>, J. Bartlett<sup>4</sup>. <sup>1</sup>Medical Research Council of South Africa, Alcohol and Drug Abuse Research Unit, South Africa; <sup>2</sup>Virginia Commonwealth University, United States; <sup>3</sup>Manderscheid Associates, United States; <sup>4</sup>The AVISA Group, United States

Suboxone and methadone for HIV risk reduction in Subutex<sup>®</sup> injectors—baseline characteristics and drug use patterns

G. Piralishvili<sup>1</sup>, D. Otiashvili<sup>2</sup>, G.E. Woody<sup>3</sup>, S. Poole<sup>3</sup>, I. Kirtadze<sup>2</sup>, G. Kamkamidze<sup>4</sup>, L. Batselashvili<sup>2</sup>, M. Sinjikashvili<sup>2</sup>, M. Chelidze<sup>2</sup>. <sup>1</sup>Georgian Research Institute on Addiction, Georgia; <sup>2</sup>Addiction Research Center, Alternative Georgia, Georgia; <sup>3</sup>Department of Psychiatry, University of Pennsylvania, United States; <sup>4</sup>Georgian Maternal and Child Care Union, Georgia

Health outcomes of opioid-dependent women maintained on methadone in metropolitan Barcelona, Spain: 1992–2008

I. Rivas<sup>1</sup>, A. Sanvisens<sup>2</sup>, E. Faure<sup>1</sup>, E. Martinez<sup>2</sup>, M. Guerrero<sup>1</sup>, C. Romero<sup>1</sup>, J. Tor<sup>2</sup>, R. Muga<sup>2</sup>. <sup>1</sup>Municipal Center for Substance Abuse Treatment, Spain; <sup>2</sup>Hospital Universitari Germans Trias i Pujol, Spain

United Nations Office on Drugs and Crime-World Health Organization Programme on Drug Dependence Treatment and Care—effective and humane treatment for all people with drug use disorders

E. Saenz<sup>1</sup>, A. Busse<sup>1</sup>, N. Clark<sup>2</sup>, G. Campello<sup>1</sup>, G. Gerra<sup>1</sup>, V. Poznyak<sup>2</sup>. <sup>1</sup>United Nations Office on Drugs and Crime-Headquarters, Austria; <sup>2</sup>World Health Organization, Switzerland

Challenges of methadone maintenance treatment in Indonesia

R. Sarasvita, L.M. Savitri, L. Levina, Irmansyah. Directorate of Mental Health Care, The Ministry of Health, Indonesia.

Opioid-induced hyperalgesia—can it be reversed? A study of active and former opioid addicts and drug-naïve controls

M. Schori<sup>1</sup>, D. Pud<sup>2</sup>, R. Treister<sup>3</sup>, E. Eisenberg<sup>2,4</sup>, E. Lawental<sup>5</sup>. <sup>1</sup>School of Social Policy and Practice, University of Pennsylvania, United States; <sup>2</sup>Faculty of Social Welfare and Health Sciences, University of Haifa, Israel; <sup>3</sup>The Rappaport Faculty of Medicine, Technion–Israel Institute of Technology, Israel; <sup>4</sup>Pain Relief Unit, Rambam Medical Center, Israel; <sup>5</sup>Department of Social Work, Tel-Hai College, Israel

Implementation and adaptation of contingency management treatments for cocaine addicts in community settings

R. Secades-Villa<sup>1</sup>, E. Sánchez-Hervás<sup>2</sup>, O. García-Rodríguez<sup>1</sup>, G. García Fernández<sup>1</sup>. <sup>1</sup>Department of Psychology, University of Oviedo, Spain; <sup>2</sup>Valencia State Health Agency, Spain

Therapeutic justice in São Paulo City, Brazil: Analysis of results from 2009 M. Sobrinho. Public Ministry of São Paulo, Brazil

Training methadone maintenance treatment counselors in provision of behaviorally oriented drug counseling in China

R. Song<sup>1</sup>, W. Zhou<sup>2</sup>, R. Schottenfeld<sup>3</sup>, M. Chawarski<sup>3</sup>. <sup>1</sup>School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, China; <sup>2</sup>Centers for Disease Control, China; <sup>3</sup>Yale University School of Medicine, United States

Knowledge about new synthetic drugs in a sample of mental health professionals: The ReDNet project

M. Torrens<sup>1</sup>, M. Farré<sup>2</sup>, F. Marsá<sup>3</sup>, ReDNet Group<sup>4</sup>. <sup>1</sup>Hospital del Mar, Universitat Autònoma de Barcelona, Spain; <sup>2</sup>Hospital del Mar Research Institute-IMIM, Universitat Autònoma de Barcelona, Spain; <sup>3</sup>Hospital del Mar Research Institute-IMIM, RTA, Spain; <sup>4</sup>ReDNet Group (O. Corazza, Z. Davey, P. De Luca, Z. Demetrovics, A. Enea, G. di Melchiorre, L. Di Furia, L. Flesland, N. Scherbaum, H. Siemann, A. Skutle, M. Pasinetti, C. Pezzolesi, H. Shapiro, E. Sferrazza, P. van der Kreeft, F. Schifano)

Treatment of co-occurring operational stress injury and substance abuse

T. Tsarouk. Sunshine Coast Health Centre, Canada

Changes in brain gray matter in abstinent heroin addicts

X. Wang<sup>1</sup>, B. Li<sup>2</sup>, X. Zhou<sup>3</sup>, Y. Liao<sup>1</sup>, J. Tang<sup>1</sup>, T. Liu<sup>1</sup>, D. Hu<sup>2</sup>, W. Hao<sup>1</sup>. <sup>1</sup>The Second Xiangya Hospital, Cental South University, China; <sup>2</sup>College of Mechatronic Engineering and Automation, National University of Defense Technology, China; <sup>3</sup>Brain Hospital of Hunan Province, China

Polydrug use among methadone maintenance treatment patients in Shanghai, China: Effects of a motivational incentives intervention

F. Wu<sup>1</sup>, Y. Hser<sup>2</sup>. <sup>1</sup>Department of Social Welfare, University of California Los Angeles, United States; <sup>2</sup>Integrated Substance Abuse Programs, University of California Los Angeles, United States

A promoter variant in OPRK1 modulates stress-induced craving, brain activity and predicts relapse in cocaine dependence in African Americans

K. Xu<sup>1</sup>, D. Suo<sup>1,3</sup>, D. Goldman<sup>4</sup>, R. Sinha<sup>1,2,3</sup>. <sup>1</sup>Department of Psychiatry, Yale University, United States; <sup>2</sup>Child Study Center, Yale University, United States; <sup>3</sup>Stress Center, Yale University, United States; <sup>4</sup>Laboratory of Neurogenetics, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, United States

Pregnancy exposure to methadone: A population-based retrospective study on infant health outcome

H.H. Yeh<sup>1</sup>, S.Y. Fang<sup>2</sup>, K.H. Chen<sup>1,2</sup>, L.W. Su<sup>3</sup>, C.H. Chen<sup>1</sup>, I.K. Ho<sup>4</sup>, C.Y. Chen<sup>1,2</sup>.

<sup>1</sup>Division of Mental Health and Addiction Medicine, National Health Research Institutes, Taiwan; <sup>2</sup>National Yang-Ming University, Taiwan; <sup>3</sup>Department of Addiction Science, Taipei City Hospital, Songde Branch, Taiwan; <sup>4</sup>Center of Addiction Medicine, China Medical University Hospital, Taiwan

Predicted cost savings related to methadone maintenance treatment in Kazakhstan A. Zhumasheva. Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States

**Grant-Writing Workshop** (PRE-REGISTRANTS ONLY)

Capra 8:00 - 12:00 PM

**Industry Relations Town Hall Meeting** 

Flores 4

8:00 - 10:00 AM

AN OPEN DISCUSSION OF ISSUES IN ACADEMIA/INDUSTRY/GOVERNMENT RELATIONS SPONSORED BY THE CPDD INDUSTRY RELATIONS COMMITTEE

Chair: Charles Gorodetzky

Introduction: Endpoints in clinical trials of addiction treatment medications Charles W. Gorodetzky, Consultant, Kansas City, MO

Total abstinence from drug use

David McCann<sup>1</sup>, Eugene Somoza<sup>2</sup>, <sup>1</sup>NIDA, Bethesda, MD, <sup>2</sup>University of Cincinnati, Cincinnati, OH

Harm reduction with decrease in drug use

Doug Kramer<sup>1</sup>, George Woody<sup>2</sup>, <sup>1</sup>Rock Creek Pharmaceuticals, Stamford, CT, <sup>2</sup>University of Pennsylvania, Philadelphia, PA

Harm reduction without necessarily reducing drug use, but altering pattern of use F. Gerard Moeller<sup>1</sup>, Rolley E. Johnson<sup>2</sup>, <sup>1</sup>University of Texas, Houston, TX, <sup>2</sup>Reckitt Benckiser Pharmaceuticals, Richmond, VA

# **Media Training Forum**

Flores 5

10:00 - 12:00 PM

### SCIENCE, THE PRESS, AND AN INFORMED PUBLIC

Chairs: Marc J. Kaufman and Kathleen T. Brady

Introduction to media training for scientists: Why this is important and what you will learn Marc Kaufman, Brain Imaging Center, McLean Hospital, Blemont, MA

A scientist in the media spotlight: Converging and conflicting missions
Bertha K. Madras, New England Primate Research Center, Harvard Medical School,
Southborough, MA

Interviews with scientists: A reporter's perspective Shari Roan, Los Angeles Times, Los Angeles, CA

Making sense of science and sound bites and mock interview sessions with coaching Bertha Madras, New England Primate Research Center, Harvard Medical School, Southborough, MA

Discussant

Kathleen T. Brady, Medical University of South Carolina, Charleston, SC

## **Poster Session II (Lunch)**

Fiesta 12:00 - 2:00 PM

Odd-numbered posters manned first hour; Even-numbered, second hour

Set-up time begins Monday 2:00 PM Must be removed by Tuesday 2:30 PM

#### COCAINE: ANIMAL STUDIES

- 1 Persistent attenuation of cocaine-reinforced behavior: Effects on non-drug reward and separating cholinesterase inhibition and drug self-administration
  K. Grasing¹, Y. Yang², S. He¹, ¹VA Medical Center, Kansas City, MO, ²Southern Medical University, Guangzhou, China
- 2 Comparing the effect of sucrose and cocaine reinforcer magnitude on resistance to extinction T. H. Cheung, S. M. Weber, M. Adams, F. Sanabria, J. L. Neisewander, Arizona State University, Tempe, AZ
- 3 Neuropeptide Y attenuates cocaine-primed reinstatement of a self-administration response in rats
  - M. Suarez<sup>1</sup>, M. Lisieski<sup>1</sup>, D. Dhamija<sup>2</sup>, J. A. Hood<sup>3</sup>, J. M. DiPirro<sup>4</sup>, A. C. Thompson<sup>3</sup>, <sup>1</sup>Psychology, University at Buffalo, Buffalo, NY, <sup>2</sup>Neuroscience, University at Buffalo, Buffalo, NY, <sup>3</sup>Research Institute on Addiction, University at Buffalo, Buffalo, NY, <sup>4</sup>Psychology, Buffalo State College, Buffalo, NY
- 4 Salvinorin A and its analogue attenuate cocaine prime-induced drug seeking in rats
  A. Morani<sup>1,2</sup>, S. Schenk<sup>3</sup>, B. Kivell<sup>1</sup>, T. E. Prisinzano<sup>4</sup>, <sup>1</sup>Veterans Affairs, Kansas University
  Medical Centre, Kansas City, MO, <sup>2</sup>School of Biological Sciences, Victoria University of
  Wellington, Wellington, New Zealand, <sup>3</sup>School of Psychology, Victoria University of
  Wellington, Wellington, New Zealand, <sup>4</sup>Medicinal Chemistry, University of Kansas,
  Lawrence, KS
- 5 The role of the lateral habenula in the reinstatement of cocaine-seeking M. J. Gill, T. C. Jhou, P. H. Do, R. E. See, Neurosciences, Medical University of South Carolina, Charleston, SC
- 6 The assessment of dopaminergic involvement in cocaine-induced taste aversions K. M. Serafine<sup>1</sup>, M. A. Briscione<sup>1</sup>, K. C. Rice<sup>2</sup>, A. L. Riley<sup>1</sup>, <sup>1</sup>Psychology, American University, Washington, DC, <sup>2</sup>Chemical Biology Research Branch, NIDA & NIAA, Bethesda, MD
- 7 Acute binge cocaine induces opposing and region-specific effects in the striatum of D1 and D2-EGFP mice
  - C. Lawhorn<sup>1</sup>, E. Edusei<sup>2</sup>, Y. Zhou<sup>1</sup>, A. Ho<sup>1</sup>, M. J. Kreek<sup>1</sup>, <sup>1</sup>The Laboratory of the Biology of Addictive Diseases, The Rockefeller University, New York, NY, <sup>2</sup>Lehman College, New York, NY
- 8 Regulation of Akt and GSK3 phosphorylation by dopamine receptors in mouse nucleus accumbens
  - X. Shi, Y. Qiu, E. M. Unterwald, Pharmacology, Temple University School of Medicine, Philadelphia, PA
- 9 Effects of intra-accumbal shRNA against CART peptides on body weight, CART peptide levels, and cocaine-induced locomotor activity in rats
  - M. Job, J. Licata, G. Hubert, M. Kuhar, Yerkes National Primate Research Center, Emory University, Atlanta, GA

- 10 Synergistic suppression of cocaine-evoked elevations in motility and cortical serotonin (5-HT) 2C receptor (5-HT $_{2C}R$ ) expression by combined administration of a selective 5-HT $_{2A}R$  antagonist plus a 5-HT $_{2C}R$  agonist
  - S. E. Swinford<sup>1,2</sup>, N. C. Anastasio<sup>1,3</sup>, S. J. Stutz<sup>1,3</sup>, R. G. Fox<sup>1,3</sup>, K. A. Cunningham<sup>1,3</sup>, <sup>1</sup>Center Addiction Research, University of Texas Medical Branch, Galveston, TX, <sup>2</sup>University of Texas Medical Branch, Galveston, TX, <sup>3</sup>Department of Pharmacology and Toxicology, University of Texas Medical Branch, Galveston, TX
- 11 Female vulnerability to social stress and its effects on cocaine taking
  A. Shimamoto¹, E. N. Holly¹, C. O. Boyson¹, J. F. DeBold¹, K. A. Miczek¹,² ¹Psychology, Tufts
  University, Medford, MA, ²Psychiatry, Pharmacology, and Neuroscience, Tufts University,
  Boston, MA
- 12 Stress-induced increases in cocaine-seeking and depression-like behavior are reversed by disruption of memories during reconsolidation
  J. P. McLaughlin<sup>1,2</sup>, K. E. Rowan<sup>2</sup>, E. R. Sklar<sup>2</sup>, S. Gomes<sup>1,2</sup>, K. Sitchenko<sup>2</sup>, A. N. Carey<sup>2</sup>, <sup>1</sup>Torrey Pines Institute for Molecular Studies, Port St. Lucie, FL, <sup>2</sup>Dept. of Psychology, Northeastern University, Boston, MA
- 13 Role of nitric oxide signaling in stress-induced reinstatement of cocaine-induced conditioned place preference
  S. Liddie, K. L. Anderson, Y. Itzhak, University of Miami Miller School of Medicine, Miami, FL

#### NICOTINE/TOBACCO: ANIMAL STUDIES

- 14 Chronic nicotine exposure affects the survival and reproductive capacity of adult zebrafish S. F. Zhao<sup>1</sup>, W. Y. Cui<sup>1</sup>, M. D. Li<sup>1,2</sup>, <sup>1</sup>State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, The First Affiliated Hospital, Zhejiang University, Hangzhou, China, <sup>2</sup>Psychiatry and Neurobehavioral Sciences, University of Virginia, Charlottesville, VA
- Gestational intravenous nicotine increases sensitivity to methamphetamine reinforcement in adult rat offspring
   R. T. Lacy, A. J. Morgan, S. B. Harrod, Psychology, University of South Carolina, Columbia, SC
- Effects of environmental enrichment on nicotine-induced sensitization and cross-sensitization to d-amphetamine in rats
   D. J. Stairs, J. Klug, E. Adams, M. Wiles, M. Quast, Psychology, Creighton University, Omaha, NE
- 17 Nicotine-related brain activity: Influences of smoking history and blood nicotine level R. T. Yamamoto<sup>1,2</sup>, M. Rohan<sup>1,2</sup>, N. Goletiani<sup>2</sup>, D. Olson<sup>1</sup>, M. Peltier<sup>2</sup>, P. Renshaw<sup>3</sup>, N. Mello<sup>2</sup>, <sup>1</sup>BIC, McLean Hospital, Belmont, MA, <sup>2</sup>ADARC, McLean Hospital, Belmont, MA, <sup>3</sup>University of Utah, Salt Lake City, UT
- 18 The rewarding effects of nicotine are enhanced in diabetic rats
  J. Jackson¹, L. A. Natividad¹, I. D. Torres¹, A. Nazarian², L. E. O'Dell¹, ¹Psychology,
  University of Texas at El Paso, El Paso, TX, ²Pharmaceutical Science, Western University,
  Pomona, CA
- 19 Discriminative stimulus effects of mecamylamine in nicotine-treated and untreated rhesus monkeys
  - C. S. Cunningham, L. R. McMahon, Pharmacology, UTHSCSA, San Antonio, TX

#### SEDATIVE/HYPNOTICS

- 20 Subjective, behavioral and cognitive effects of oral vs. inhaled alprazolam J. A. Harrison¹, C. J. Reissig¹, R. R. Griffiths¹,², ¹Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD, ²Neuroscience, Johns Hopkins University School of Medicine, Baltimore, MD
- 21 Quantitative analyses of time and dose relationships for flumazenil to antagonize midazolam in rhesus monkeys
  - C. Zanettini, C. P. France, L. R. Gerak, Department of Pharmacology, The University of Texas Health Science Center at San Antonio, San Antonio, TX
- 22 Receptor mechanisms of carisoprodol antagonism using drug discrimination
  J. D. Nguyen, T. Carbonaro, M. Forster, M. B. Gatch, Pharmacology & Neuroscience, UNT
  Health Science Center, Fort Worth, TX
- 23 Effects of benzodiazepines on morphine-induced hyperlocomotion accompanied by the changes of KCC2 in the nucleus accumbens
  - D. Masukawa, M. Shibasaki, T. Mori, K. Ishii, Y. Saito, Y. Yamagishi, T. Suzuki, Departments of Toxicology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Sinagawa, Tokyo, Japan
- 24 Hyperarousal in insomnia and chronic hypnotic self-administration

  T. Roehrs<sup>1,2</sup>, S. Randall<sup>1</sup>, T. Roth<sup>1,2</sup>, <sup>1</sup>Sleep Disorders & Research Center, Henry Ford Health System, Detroit, MI, <sup>2</sup>Psychiatry & Behavioral Neurosciences, School of Medicine, Wayne State University, Detroit, MI
- 25 Zolpidem-SSRI interactions: Implications for treatment of comorbid depression and insomnia? S. Licata, E. Jensen, J. Winer, N. Conn, S. Lukas, McLean Hospital/Harvard Medical School, Belmont, MA
- 26 Pilot trial of gabapentin for the treatment of benzodiazepine abuse or dependence in methadonemaintenance patients
  - J. J. Mariani<sup>1</sup>, R. J. Malcolm<sup>2</sup>, A. Glass<sup>1</sup>, A. K. Mamczur<sup>1</sup>, R. Brady<sup>3</sup>, E. V. Nunes<sup>1</sup>, F. R. Levin<sup>1</sup>, <sup>1</sup>Psychiatry/Division on Substance Abuse, Columbia University/New York State Psychiatric Institute, New York, NY, <sup>2</sup>Psychiatry, Medical University of South Carolina, Charleston, SC, <sup>3</sup>NarcoFreedom, Inc., New York, NY
- 27 Benzodiazepine dependence: Personal definitions of older women
  S. L. Canham, Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 28 Nonmedical use of prescription drugs among school adolescents in Bogota, Colombia C. Lopez-Quintero, Y. Neumark, Braun School of Public Health, Hebrew University of Jerusalem, Jerusalem, Israel
- 29 Nonmedical prescription drug use among school adolescents in Israel
  Y. Neumark<sup>1</sup>, Y. Harel-Fisch<sup>2</sup>, <sup>1</sup>Braun School of Public Health, Hebrew University of
  Jerusalem, Jerusalem, Israel, <sup>2</sup>Anti-Drug Authority of Israel, Jerusalem, Israel

### SEX DIFFERENCES: HUMAN STUDIES

- 30 Gender comparisons of drug abuse treatment outcomes among AAPI Y. Han, V. Lin, Y. Hser, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- 31 Sex differences in the purchasing and use patterns of heroin and cocaine
  A. M. Loree, M. K. Greenwald, C. L. Steinmiller, L. H. Lundahl, Substance Abuse Research
  Division, Wayne State University, Detroit, MI

- 32 Examining neurocognitive sex differences in young adult cannabis users
  N. A. Crane<sup>1</sup>, R. M. Schuster<sup>1</sup>, R. Gonzalez<sup>2</sup>, <sup>1</sup>Psychology, University of Illinois at Chicago,
  Chicago, IL, <sup>2</sup>Psychiatry, University of Illinois at Chicago, Chicago, IL
- 33 Social exclusion and increased risky propensity among female crack cocaine users
  E. Hoffman, C. Kopez, A. Pickover, C. Lejuez, Psychology Department, University of
  Maryland, College Park, MD
- 34 Gender differences of heterosexual anal sex among men and women in substance abuse treatment
  - D. A. Calsyn<sup>1</sup>, M. A. Hatch-Maillette<sup>1</sup>, S. Tross<sup>2</sup>, A. N. Campbell<sup>2</sup>, <sup>1</sup>Alcohol & Drug Abuse Institute, University of Washington, Seattle, WA, <sup>2</sup>Department of Psychiatry, Columbia University College of Physicians & Surgeons, New York, NY
- 35 Legal and illegal substance consumption among Austrian students
  C. Zachbauer, A. Matznetter, B. Koechl, V. Metz, G. Fischer, Department for Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria
- 36 Gender differences in the prevalence and correlates of adult onset smoking in the U.S A. Thompson, S. McKee, Yale University, New York, NY
- 37 Smoking motivation in adults with and without attention-deficit/hyperactivity disorder
  J. Mitchell<sup>1</sup>, S. H. Kollins<sup>1</sup>, F. J. McClernon<sup>1,2</sup>, <sup>1</sup>Psychiatry & Behavioral Sciences, Duke
  University Medical Center, Durham, NC, <sup>2</sup>NC Veterans Affairs Medical Center, Durham, NC
- 38 Sexual locus of control and engagement in sexual risk behavior among cocaine users
  A. Pickover, C. Kopetz, C. W. Lejuez, Center for Addictions, Personality and Emotion
  Research, University of Maryland, College Park, MD
- 39 Sex differences in the discounting of sexual and monetary rewards in cocaine dependence N. R. Bruner, M. W. Johnson, Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD
- 40 Power and HIV risk among out-of-treatment women using methamphetamine
  D. Rinehart<sup>1</sup>, K. Corsi<sup>1</sup>, S. Min<sup>1</sup>, W. Wechsberg<sup>2</sup>, R. Booth<sup>1</sup>, <sup>1</sup>University of Colorado Denver,
  Denver, CO, <sup>2</sup>RTI International, RTP, NC
- 41 Perceived neighborhood safety, social capital, and drug use abstinence among mothers 10 years after substance abuse treatment
  E. Evans, L. Li, S. Hunt, Y. Hser, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- 42 *Maternal substance abuse and child behavior: A 10-year prospective study*Y. Hser, E. Evans, L. Li, A. Metchik, N. Messina, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- Monitoring deaths by tobacco use: A Brazilian gender perspective for direct gender-sensitive prevention policies
   V. M. Gonçalves¹, S. S. Martins², T. Bastos¹, F. Pechansky¹, ¹Center for Drugs & Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, ²Department of
- Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

  44 Gender differences in substance use and mental health service utilization among persons with
- substance use disorders with vs. without comorbid major depression

  L. Chen, R. Mojtabai, R. Crum, E. Strain, Johns Hopkins University, Baltimore, MD

#### PSYCHIATRIC COMORBIDITY I: DEPRESSION, PTSD

- 45 Venlafaxine treatment lowers abstinence rates in marijuana-dependent adults with depression F. R. Levin<sup>1,2</sup>, J. J. Mariani<sup>1,2</sup>, M. Pavlicova<sup>3</sup>, D. J. Brooks<sup>2</sup>, E. V. Nunes<sup>1,2</sup>, V. Agosti<sup>2</sup>, A. Bisaga<sup>1,2</sup>, M. A. Sullivan<sup>1,2</sup>, K. Carpenter<sup>1,2</sup>, <sup>1</sup>Psychiatry, Columbia University, New York, NY, <sup>2</sup>Substance Abuse, NYSPI, New York, NY, <sup>3</sup>Biostatistics, Columbia University, New York, NY
- 46 Discontinuous enrollment during college: Associations with drug use and mental health A. M. Arria<sup>1</sup>, K. M. Caldeira<sup>1</sup>, K. B. Vincent<sup>1</sup>, K. E. O'Grady<sup>2</sup>, <sup>1</sup>Center on Young Adult Health and Development, University of Maryland School of Public Health, College Park, MD, <sup>2</sup>Psychology, University of Maryland, College Park, MD
- 47 The bidirectional association between alcohol, marijuana, and co-occurring alcohol and marijuana use disorders with major depression
  L. R. Pacek¹, S. S. Martins¹, R. Crum².¹, ¹Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 48 Depression as a mediator in the longitudinal relationship between stress and alcohol use C. Barbosa-Leiker<sup>1,3</sup>, S. McPherson<sup>1,2,3</sup>, J. M. Cameron<sup>1</sup>, R. Jathar<sup>2</sup>, J. Roll<sup>1,3</sup>, D. G. Dyck<sup>3</sup>, <sup>1</sup>College of Nursing, Washington State University, Spokane, WA, <sup>2</sup>Health Policy and Administration, Washington State University, Spokane, WA, <sup>3</sup>Department of Psychology, Washington State University, Pullman, WA
- 49 Explicating the role of positive and negative affect in alcohol craving in individuals with posttraumatic stress disorder and alcohol dependence
  E. Nosen<sup>2,1,3</sup>, Y. Nillni<sup>4,1,3</sup>, E. Berenz<sup>5</sup>, J. Schumacher<sup>1</sup>, P. Stasiewicz<sup>6</sup>, S. Coffey<sup>1</sup>, <sup>1</sup>University of Mississippi Medical Center, Jackson, MS, <sup>2</sup>University of British Columbia, Vancouver, BC, Canada, <sup>3</sup>The G.V. (Sonny) Montgomery VA Medical Center, Jackson, MS, <sup>4</sup>University of Vermont, Burlington, VT, <sup>5</sup>Virginia Institute for Psychiatric and Behavioral Genetics, Virginia Commonwealth University, Richmond, VA, <sup>6</sup>Research Institute on Addictions, University at Buffalo, Buffalo, NY
- 50 The impact of depressive disorders and gender on transitions in smoking in the U.S. population A. H. Weinberger<sup>1</sup>, R. A. Desai<sup>1,2,3</sup>, C. M. Mazure<sup>1</sup>, S. A. McKee<sup>1</sup>, <sup>1</sup>Psychiatry, Yale University School of Medicine, New Haven, CT, <sup>2</sup>Public Health, Yale University School of Medicine, New Haven, CT, <sup>3</sup>Northeast Program Evaluation Center, VA Connecticut Healthcare System-West Haven, West Haven, CT
- 51 Associations between dimensions of distress tolerance and tobacco dependence characteristics: Incremental relations over and above anxiety and depressive symptoms
  M. A. Trujillo, J. B. Greenberg, S. R. Pitts, K. J. Ameringer, J. J. Palau, A. M. Leventhal, Preventive Medicine, University of Southern California, Los Angeles, CA
- 52 Smoking and psychopathology increasingly associated in more recent birth cohorts:
  Implications for clinical & genetic studies

  A. Talati¹, D. S. Hasin¹², P. E. Endsley¹, K. M. Keyes¹, P. J. Wickramaratne¹,

  M. M. Weissman¹², F. R. Levin¹³, ¹Psychiatry (Div. of Epidemiology), Columbia University and New York State Psychiatric Institute, New York, NY, ²Epidemiology, Columbia University, New York, NY, ³Psychiatry (Div. of Substance Use), Columbia University and New York State Psychiatric Institute, New York, NY

- 53 Depressive symptoms in heavy cigarette smokers: The influence of race and gender
  T. J. Payne<sup>1</sup>, J. Z. Ma<sup>2</sup>, K. M. Crews<sup>1</sup>, M. D. Li<sup>3</sup>, <sup>1</sup>Otolaryngology and Communicative
  Sciences, University of Mississippi Medical Center, Jackson, MS, <sup>2</sup>Public Health Sciences,
  University of Virginia, Charlottesville, VA, <sup>3</sup>Psychiatry and Neurobehavioral Sciences,
  University of Virginia, Charlottesville, VA
- 54 Conjoint trajectories of drug use and trajectories of depressive symptoms in adults: A 2-decade portrait of comorbidity (the CARDIA study)
  Y. Khodneva<sup>1</sup>, M. Pletcher<sup>2</sup>, M. Safford<sup>1</sup>, J. Schumacher<sup>1</sup>, J. Tucker<sup>1</sup>, S. Kertesz<sup>3,1</sup>, <sup>1</sup>University of Alabama Birmingham, Birmingham, AL, <sup>2</sup>University of California San Francisco, San Francisco, CA, <sup>3</sup>Birmingham VAMC, Birmingham, AL
- 55 Cocaine dependence treatment affects co-morbid depression: Abstinence makes the difference J. B. Milby<sup>1</sup>, S. Mrug<sup>1</sup>, D. Wallace<sup>2</sup>, J. Schumacher<sup>1</sup>, S. Mennemeyer<sup>1</sup>, <sup>1</sup>Univ of Alabama at Birmingham, Birmingham, AL, <sup>2</sup>RTI International, Triangle Park, NC
- The relationship between drug use stigma and depression
   C. Latkin, M. Davey-Rothwell, A. Knowlton, J. Yang, Health Behavior and Society, John Hopkins Bloomberg School of Public Health, Baltimore, MD
- 57 Adverse pregnancy outcomes and current health status in women with PTSD and SUD J. E. Korte<sup>1</sup>, T. Killeen<sup>1</sup>, A. Campbell<sup>2</sup>, D. Hien<sup>3</sup>, K. T. Brady<sup>1,4</sup>, <sup>1</sup>Medical University of South Carolina, Charleston, SC, <sup>2</sup>Columbia University, New York, NY, <sup>3</sup>City College of New York, New York, NY, <sup>4</sup>Ralph H. Johnson VA Medical Center, Charleston, SC
- 58 Physical health perceptions of women with comorbid PTSD and SUD
  T. Killeen<sup>1</sup>, J. Korte<sup>1</sup>, A. Campbell<sup>2</sup>, D. Hien<sup>2</sup>, K. Brady<sup>1</sup>, <sup>1</sup>Medical University of South Carolina, Charleston, SC, <sup>2</sup>Columbia University, New York, NY
- 59 Traumatic events, PTSD and substance use among adults in an urban Emergency Department L. S. Massey<sup>1</sup>, M. Walton<sup>1</sup>, K. Bohnert<sup>1,2</sup>, S. Chermack<sup>1,2</sup>, K. Barry<sup>1,2</sup>, M. Ilgen<sup>1,2</sup>, A. Bohnert<sup>1,2</sup>, R. Cunningham<sup>1</sup>, B. Booth<sup>3</sup>, F. Blow<sup>1,2</sup>, <sup>1</sup>Psychiatry, University of Michigan, Ann Arbor, MI, <sup>2</sup>VA, Ann Arbor, MI, <sup>3</sup>University of Arkansas for Medical Sciences and VA, Little Rock, AR
- 60 *PTSD history and emergency department presentation due to violent injury: Examining a possible connection among drug-using young adults*K. Bohnert<sup>1,2</sup>, M. Walton<sup>1</sup>, S. Chermack<sup>1,2</sup>, M. Zimmerman<sup>1</sup>, F. Blow<sup>1,2</sup>, B. Booth<sup>3</sup>, R. Cunningham<sup>1</sup>, <sup>1</sup>Psychiatry, University of Michigan, Ann Arbor, MI, <sup>2</sup>VA Ann Arbor, Ann Arbor, MI, <sup>3</sup>University of Arkansas, Little Rock, AR
- Relationships among revictimization, PTSD, HIV risk behavior, and drug use onset in injecting drug users
   R. L. Schacht, M. S. Kidorf, J. M. Peirce, Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD
- 62 Sexual abuse history associates with dissociation and complex PTSD but among methadone maintenance treatment women it associates with OCD

  E. Peles¹,³, Z. Seligman², D. Potik¹,², S. Schreiber¹,²,³, M. Adelson¹, ¹Adelson Clinic for Drug Abuse Treatment & Research, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, ²Division of Psychiatry, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, ³Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel

#### OPIOIDS: HUMAN STUDIES I

New Haven, CT

- 63 Naltrexone for opioid dependence: Oral, implantable, and injectable
  E. M. Krupitsky<sup>2,3</sup>, E. Zvartau<sup>2</sup>, E. Blokhina<sup>2</sup>, E. Verbitskaya<sup>2</sup>, G. E. Woody<sup>1</sup>, <sup>1</sup>Psychiatry,
  University of Pennsylvania, Philadelphia, PA, <sup>2</sup>Addictions, Pavlov Medical University, St.
  Petersburg, Russian Federation, <sup>3</sup>Addictions, Bekhterev Research Psychoneurological Institute,
  St. Petersburg, Russian Federation
- 64 RCT cross-over trial comparing buprenorphine-naloxone tablets to film

  N. Lintzeris<sup>1,2</sup>, S. Leung<sup>2,1</sup>, A. Dunlop<sup>3</sup>, R. Ali<sup>5</sup>, L. Degenhardt<sup>4</sup>, B. Larance<sup>4</sup>, N. White<sup>5</sup>,

  <sup>1</sup>Langton Centre, Sydney, NSW, Australia, <sup>2</sup>Addiction Medicine, Sydney University,

  Sydney, NSW, Australia, <sup>3</sup>University Newcastle, Newcastle, NSW, Australia, <sup>4</sup>NDARC,

  UNSW, Sydney, NSW, Australia, <sup>5</sup>University Adelaide, Adelaide, SA, Australia
- 65 Polydrug abusers who fail to differentiate opioid from placebo in laboratory challenge testing D. G. Antoine, E. C. Strain, D. A. Tompkins, G. E. Bigelow, Behavioral Pharmacology Research Unit, Johns Hopkins Bayview, Baltimore, MD
- 66 Behavioral treatment added to pharmacotherapy with buprenorphine for opioid dependence W. Ling, M. P. Hillhouse, J. Fahey, B. Thornton, E. Schaper, J. Jenkins, S. MacNicoll, S. Reed, L. Mooney, K. Miotto, M. Torrington, D. Dickerson, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA
- Effects of gabapentin in opioid-dependent individuals during a 10-day buprenorphine detoxification
   N. Sanders¹, M. J. Mancino¹, W. B. Gentry¹, W. K. Bickel², J. B. Guise¹, A. H. Oliveto¹, ¹Psychiatry, Center for Addiction Research, University of Arkansas for Medical Sciences, Little Rock, AR, ²Psychology, Virginia Tech Carilion Research Institute, Roanoke, VA
- 68 Benzodiazepine use and buprenorphine treatment outcomes: A retrospective study Z. D. Schuman-Olivier<sup>1</sup>, J. Borodovsky<sup>2</sup>, H. J. Shaffer<sup>1</sup>, R. D. Weiss<sup>1</sup>, M. Albanese<sup>1</sup>, <sup>1</sup>Psychiatry, Harvard Medical School, Boston, MA, <sup>2</sup>Tufts University, Medford, MA
- 69 The cognitive effects of methadone and buprenorphine in maintenance patients
  M. J. Dry<sup>1</sup>, N. R. Burns<sup>1</sup>, T. Nettelbeck<sup>1</sup>, A. Farquharson<sup>2</sup>, A. Somogyi<sup>3</sup>, J. White<sup>2</sup>, <sup>1</sup>Psychology,
  University of Adelaide, Adelaide, SA, Australia, <sup>2</sup>Pharmacy and Medical Sciences, University
  of South Australia, Adelaide, SA, Australia, <sup>3</sup>Pharmacology, University of Adelaide,
  Adelaide, SA, Australia
- 70 An investigation of cognitive function in methadone-substituted opiate users
  G. Y. Wang<sup>1,2</sup>, T. A. Wouldes<sup>3</sup>, B. R. Russell<sup>1,2</sup>, <sup>1</sup>School of Pharmacy, University of Auckland,
  Auckland, New Zealand, <sup>2</sup>Centre of Brain Research, The University of Auckland, Auckland,
  New Zealand, <sup>3</sup>Psychological Medicine, The University of Auckland, Auckland, New Zealand
- 71 Methadone maintenance patients and cognitive performance M. Z. Mintzer, B. A. Kleykamp, R. G. Vandrey, G. E. Bigelow, J. S. Leoutsakos, M. L. Stitzer, E. C. Strain, Johns Hopkins University, Baltimore, MD
- 72 The feasibility and acceptability of using the Nintendo® Wii Fit exercise program in patients receiving methadone

  C. J. Cutter<sup>1,2</sup>, M. Beitel<sup>1</sup>, J. D. Savant<sup>2</sup>, B. A. Moore<sup>1,2</sup>, R. S. Schottenfeld<sup>1</sup>, D. A. Fiellin<sup>1</sup>,

  D. T. Barry<sup>1,2</sup>, <sup>1</sup>Yale University, New Haven, CT, <sup>2</sup>Pain Treatment Services, APT Foundation,
- 73 Methadone dose-related increase in QTc without significant prolongation or arrhythmia K. A. Phillips¹, D. H. Epstein¹, D. Reamer¹, G. Bart², K. L. Preston¹, ¹National Institute on Drug Abuse, Intramural Research Program, National Institutes of Health, Baltimore, MD, ²University of Minnesota, Minneapolis, MN

- 74 The assessment of pain in a methadone-maintained population: Does reading level matter?
  D. A. Tompkins, E. C. Strain, A. Umbricht, Psychiatry, Johns Hopkins University School of Medicine, Baltimore, MD
- 75 Counselors' attitudes toward pain treatments in methadone maintenance treatment M. Beitel<sup>1,2</sup>, L. Oberleitner<sup>1,2</sup>, C. Doucette<sup>2</sup>, R. Napoleone<sup>2</sup>, R. Schottenfeld<sup>1</sup>, D. Barry<sup>1,2</sup>, <sup>1</sup>Yale University School of Medicine, New Haven, CT, <sup>2</sup>APT Foundation Pain Treatment Services, New Haven, CT

#### PHARMACOKINETICS, CHEMISTRY

- 76 Ethnic variation in methadone pharmacokinetics
  G. Bart<sup>1,2</sup>, S. Lenz<sup>2</sup>, P. Pentel<sup>1,2</sup>, R. Straka<sup>3</sup>, R. Brundage<sup>3</sup>, <sup>1</sup>Medicine, Hennepin County Medical Center, Minneapolis, MN, <sup>2</sup>Minneapolis Medical Research Foundation, Minneapolis, MN, <sup>3</sup>College of Pharmacy, University of Minnesota, Minneapolis, MN
- 77 Effect of HCV infection on buprenorphine pharmacokinetics in opioid dependence
  E. F. McCance-Katz¹, C. L. Masson¹, P. M. Rainey², D. E. Moody³, ¹Psychiatry, University of
  California, San Francisco, San Francisco, CA, ²Department of Laboratory Medicine,
  University of Washington, Seattle, WA, ³Department of Pharmacology and Toxicology,
  University of Utah, Salt Lake City, UT
- 78 Effects of various tampering methods on exposure to oxycodone in healthy subjects
  S. Harris<sup>1</sup>, S. Colucci<sup>1</sup>, P. Perrino<sup>1</sup>, D. Mandarino<sup>2</sup>, <sup>1</sup>Clinical Pharmacology, Purdue Pharma LP,
  Stamford, CT, <sup>2</sup>Covance Clinical Research, Madison, WI
- 79 Safety, tolerability, and pharmacokinetics of crushed intranasal oxycodone tamper-resistant tablets and OxyContin® in healthy adults
  S. Colucci¹, S. Harris¹, P. J. Perrino¹, G. Apseloff², ¹Clinical Pharmacology, Purdue Pharma LP, Stamford, CT, ²Ohio State Univ, Columbus, OH
- 80 Bridging from conventional marketed extended release formulations to new tamper-resistant alternatives

  H. Stahlberg<sup>1</sup>, M. Brett<sup>2</sup>, E. Galia<sup>3</sup>, J. Ossig<sup>2</sup>, B. Wenge<sup>1</sup>, <sup>1</sup>Clinical Pharmacology, Gruenenthal GmbH, Aachen, Germany, <sup>2</sup>Pharmacokinetics, Gruenenthal GmbH, Aachen, Germany, <sup>3</sup>Pre-Clinical Drug Development, Gruenenthal GmbH, Aachen, Germany
- 81 In vitro crush and extraction testing of oxymorphone extended-release tablets designed to be crush resistant
  M. S. Wieman¹, E. Galia², S. Schwier², I. Lehrach², J. Bartholomaeus³, ¹Endo Pharmaceuticals Inc, Chadds Ford, PA, ²Grunenthal GmbH, Aachen, Germany, ³Pharmakreativ Consulting, Aachen, Germany
- A bivalent opiate vaccine reduces the distribution of 6-acetylmorphine, morphine and oxycodone to brain in rats
   M. Pravetoni<sup>1,2</sup>, M. Raleigh<sup>3</sup>, A. Tucker<sup>1</sup>, T. Harmon<sup>1</sup>, J. M. Jones<sup>4</sup>, A. K. Birnbaum<sup>4</sup>, M. Le Nour<sup>5</sup>, P. S. Portoghese<sup>5,3</sup>, P. R. Pentel<sup>1,2,3</sup>, <sup>1</sup>Minneapolis Medical Research Foundation, Minneapolis, MN, <sup>2</sup>Department of Medicine, University of Minnesota, Minneapolis, MN, <sup>3</sup>Pharmacology, University of Minnesota, Minneapolis, MN, <sup>4</sup>Department of Experimental Pharmacology, University of Minnesota, Minneapolis, MN, <sup>5</sup>Medicinal Chemistry, University of Minnesota, Minneapolis, MN
- 83 Effects of a morphine conjugate vaccine on heroin pharmacokinetics in rats
  M. D. Raleigh<sup>1</sup>, M. Pravetoni<sup>2,5</sup>, M. Le Naour<sup>3</sup>, J. M. Jones<sup>4</sup>, P. S. Portoghese<sup>1,3</sup>,
  A. K. Birnbaum<sup>4</sup>, P. R. Pentel<sup>1,5</sup>, <sup>1</sup>Pharmacology, University of Minnesota, Minneapolis, MN,

  <sup>2</sup>Medicine, University of Minnesota, Minneapolis, MN, <sup>3</sup>Medicinal Chemistry, University of Minnesota, Minneapolis, MN, <sup>4</sup>Experimental and Clinical Pharmacology, University of Minnesota, Minneapolis, MN, <sup>5</sup>Minneapolis Medical Research Foundation, Minneapolis, MN

- 84 *Pharmacokinetic/pharmacodynamic modeling of cocaine self-administration behavior in rats* L. M. Chevillard<sup>1</sup>, M. Suarez<sup>3</sup>, A. C. Thompson<sup>2</sup>, R. M. Straubinger<sup>1</sup>, D. E. Mager<sup>1</sup>, <sup>1</sup>University at Buffalo, Buffalo, NY, <sup>2</sup>RIA, University at Buffalo, Buffalo, NY, <sup>3</sup>University at Buffalo, Buffalo, NY
- 85 The effect of mifepristone on cortisol secretion in male cocaine-dependent treatment-seekers W. N. Raby<sup>1,2</sup>, C. A. Onyemekwu<sup>2</sup>, E. V. Nunes<sup>1,2</sup>, <sup>1</sup>Psychiatry/Division on Substance Abuse, Columbia University, New York, NY, <sup>2</sup>Psychiatry/Division on Substance Abuse, New York State Psychiatric Institute, New York, NY
- 86 Pharmacokinetic and pharmacodynamic effects of supra-therapeutic 9-THC doses in cannabis users
  - J. Lile, T. Kelly, A. Stinchcomb, R. Charnigo, E. Forester, D. Hudson, M. Neltner, L. Hays, University of Kentucky, Lexington, KY
- 87 Prevalence of cannabis in drivers, and drugs in paired oral fluid: blood specimens
  C. Moore<sup>1</sup>, J. Lacey<sup>2</sup>, T. Kelley-Baker<sup>2</sup>, <sup>1</sup>Immunalysis Corporation, Pomona, CA, <sup>2</sup>Pacific Institute, Calverton, MD
- 88 Cotinine levels in non-cigarette-smoking marijuana blunt vs. joint users

  A. Murray<sup>2,1</sup>, F. R. Levin<sup>2,1</sup>, D. J. Brooks<sup>1</sup>, J. J. Mariani<sup>2,1</sup>, A. Bisaga<sup>2,1</sup>, S. Xie<sup>3,1</sup>, A. Mamczur<sup>1</sup>,
  A. Glass<sup>2</sup>, <sup>1</sup>Substance Abuse, NYSPI, New York, NY, <sup>2</sup>Psychiatry, Columbia University, New York, NY, <sup>3</sup>Analytical Psychopharmacology Laboratory3, Nathan Kline Institute for Psychiatric Research, Orangeburg, NY
- A cotinine urinalysis-based evaluation of the reliability of self-reported tobacco use among psychiatric patients
   Y. P. Balhara<sup>1</sup>, R. Jain<sup>2</sup>, S. Sundar<sup>2</sup>, R. Sagar<sup>2</sup>, <sup>1</sup>Psychiatry and De-addiction, Lady Hardinge Medical College and SSK Hospital, New Delhi, India, <sup>2</sup>National Drug Dependence Treatment Centre, All India Institute of Medical Sciences, New Delhi, India
- A new method for determining the concentration of bupropion and its three metabolites in umbilical cord plasma using LC-ESI-MS/MS
   X. Wang, D. Abdelrahman, G. D. Hankins, M. S. Ahmed, T. N. Nanovskaya, OB/GYN Maternal Fetal Medicine, University of Texas Medical Branch, Galveston, TX
- 91 Determination of beta-carbolines in smoke condensates from commercial tobacco cigarette brands
  - P. G. Pande, A. O. Cox, R. C. Daw, S. K. Sabharwal, M. D. Mason, K. H. Davis, Jr., B. F. Thomas, Analytical Chemistry and Pharmaceutics, RTI International, Research Triangle Park, NC
- 92 Surveillance of volatile constituents in electronic cigarettes
  R. Daw<sup>1</sup>, B. F. Thomas<sup>1</sup>, P. G. Pande<sup>1</sup>, A. Cox<sup>1</sup>, V. Rees<sup>2</sup>, A. Seidenberg<sup>2</sup>, <sup>1</sup>RTI International,
  Research Triangle Park, NC, <sup>2</sup>Harvard School of Public Health, Boston, MA

#### **EPIDEMIOLOGY I**

93 *Illicit drug use trajectories and hospital use over 22 years (the CARDIA study)*S. Kertesz<sup>1,2</sup>, Y. Khodneva<sup>2</sup>, M. Pletcher<sup>3</sup>, J. Richman<sup>1,2</sup>, X. Wang<sup>2</sup>, M. Safford<sup>2</sup>, <sup>1</sup>Birmingham VAMC, Birmingham, AL, <sup>2</sup>University of Alabama Birmingham, Birmingham, AL, <sup>3</sup>University of California San Francisco, San Francisco, CA

- 94 Military lifetime behavioral health utilization in deployed Army service members by substance abuse and non-substance abuse groups
  - M. Larson¹, R. S. Adams¹, W. Funk², L. Hopkins², B. Mohr¹, E. L. Merrick¹, N. R. Wooten³, D. D. Jeffery⁴, ¹Institute for Behavioral Health, Brandeis University, Waltham, MA, ²Kennell and Associates, Falls Church, VA, ³Boston University, Boston, MA, ⁴TRICARE Management Activity, Falls Church, VA
- 95 Effects of substance abuse on quality of care among elderly with non-muscle invasive bladder cancer
  - S. Chhatre<sup>1</sup>, D. S. Metzger<sup>1</sup>, G. Woody<sup>1</sup>, S. B. Malkowicz<sup>2</sup>, R. Jayadevappa<sup>3</sup>, <sup>1</sup>Psychiatry, University of Pennsylvania, Philadelphia, PA, <sup>2</sup>Surgery, University of Pennsylvania, Philadelphia, PA, <sup>3</sup>Medicine, University of Pennsylvania, Philadelphia, PA
- 96 Characteristics of people who initiate injection drug use later in life: Preliminary quantitative results from a mixed method study
  - R. Bluthenthal<sup>1</sup>, L. Wenger<sup>2</sup>, J. Thing<sup>1</sup>, S. Arreola<sup>2</sup>, D. Chu<sup>1</sup>, M. Iguchi<sup>4</sup>, P. Bourgois<sup>3</sup>, A. Kral<sup>2</sup>, <sup>1</sup>University of Southern California, Los Angeles, CA, <sup>2</sup>RTI International, San Francisco, CA, <sup>3</sup>University of Pennsylvania, Philadelphia, PA, <sup>4</sup>Georgetown University, District of Columbia, DC
- 97 Just Say Know: An examination of substance use disorders among older adults in gerontological and substance abuse journals
  - D. Rosen, R. J. Engel, A. E. Hunsaker, Y. B. Engel, E. G. Detlefsen, C. F. Reynolds, J. R. Cornelius, Social Work, University of Pittsburgh, Pittsburgh, PA
- 98 The influence of age and sociometric network position on injection drug use among rural Appalachian prescription drug users
  U. L. Mullins, A. Jonas, J. R. Havens, Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY
- 99 Increases in heroin treatment admissions across Washington State: Demographic and geographic correlates

  C. I. Banta-Green<sup>1</sup> B. Luchansky<sup>2</sup> A. Huber<sup>3</sup> L. de Montigny<sup>4</sup> T. Jackson<sup>5</sup> <sup>1</sup>Alcohe
  - C. J. Banta-Green<sup>1</sup>, B. Luchansky<sup>2</sup>, A. Huber<sup>3</sup>, L. de Montigny<sup>4</sup>, T. Jackson<sup>5</sup>, <sup>1</sup>Alcohol & Drug Abuse Institute, University of Washington, Seattle, WA, <sup>2</sup>Looking Glass Analytics, Olympia, WA, <sup>3</sup>WA Division of Behavioral Health and Recovery, Olympia, WA, <sup>4</sup>McGill University, Montreal, QC, Canada, <sup>5</sup>Evergreen Treatment Services, Seattle, WA
- 100 Characterizing the transition period from use to problem use of prescription opioids

  B. Sproule<sup>1,2</sup>, B. Brands<sup>3,1,2</sup>, <sup>1</sup>Centre for Addiction and Mental Health, Toronto, ON, Canada, <sup>2</sup>University of Toronto, Toronto, ON, Canada, <sup>3</sup>Health Canada, Ottawa, ON, Canada
- 101 Sources of opioids for nonmedical use by frequency of use in the NSDUH survey
  A. T. Kline, H. Chilcoat, P. Coplan, Risk Management & Epidemiology, Purdue Pharma LP,
  Stamford, CT
- 102 Prospective effects of adolescent ADHD, conduct disorder, novelty seeking, and substance use on young adult drug dependence
  - R. H. Palmer<sup>1</sup>, S. H. Rhee<sup>2</sup>, S. E. Young<sup>3,2</sup>, C. J. Hopfer<sup>3,2</sup>, V. S. Knopik<sup>1</sup>, M. C. Stallings<sup>2</sup>, J. K. Hewitt<sup>2</sup>, <sup>1</sup>Division of Behavioral Genetics, Rhode Island Hospital | Alpert Medical School of Brown University, Providence, RI, <sup>2</sup>Institute for Behavioral Genetics, University of Colorado at Boulder, Boulder, CO, <sup>3</sup>Department of Psychiatry, University of Colorado Denver School of Medicine, Denver, CO
- 103 Aboriginal mental health and patterns of substance use in British Columbia
  M. Al-Desouki<sup>1,2</sup>, A. Clarkson<sup>1</sup>, K. Li<sup>1</sup>, C. G. Schütz<sup>1</sup>, M. Krausz<sup>1</sup>, <sup>1</sup>Psychiatry, University of British Columbia, Vancouver, BC, Canada, <sup>2</sup>Psychiatry, King Saud University, Riyadh, Saudi Arabia

- 104 Substance use disorders and household poverty as predictors of first-time homelessness over 3 years
  - R. G. Thompson, E. Greenstein, M. M. Wall, D. Hasin, Columbia University, New York, NY
- 105 Concentrated subsidized housing and its impact on the housing instability of current and former injection drug users in Baltimore
  - S. L. Linton<sup>1</sup>, J. Astemborski<sup>1</sup>, D. German<sup>3</sup>, G. D. Kirk<sup>1,2</sup>, S. H. Mehta<sup>1</sup>, <sup>1</sup>Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, <sup>2</sup>Medicine, Johns Hopkins School of Medicine, Baltimore, MD, <sup>3</sup>Health Behavior and Society, Johns Hopkins School of Public Health, Baltimore, MD

#### HIV/HCV

- 106 Substance use history, HIV testing, and HIV vaccine acceptability among high-risk persons
  A. Swanson<sup>1</sup>, S. Shoptaw<sup>1</sup>, P. A. Newman<sup>2</sup>, S. Lee<sup>1</sup>, T. Nakazono<sup>1</sup>, W. Cunningham<sup>1</sup>,

  <sup>1</sup>University of California Los Angeles, Los Angeles, CA, <sup>2</sup>University of Toronto, Toronto, ON,
  Canada
- Impact of drug use on HIV disease progression
   J. H. Samet<sup>1</sup>, D. M. Cheng<sup>1</sup>, C. Bridden<sup>1</sup>, E. Quinn<sup>1</sup>, A. Y. Walley<sup>1</sup>, D. Lioznov<sup>2</sup>, E. Zvartau<sup>2</sup>,
   E. Blokhina<sup>2</sup>, E. Krupitsky<sup>2</sup>, <sup>1</sup>Boston University/Boston Medical Center, Boston, MA, <sup>2</sup>Pavlov State Medical University, St. Petersburg, Russian Federation
- 108 Ecstasy use among adults receiving AIDS prevention services in Los Angeles county
  S. A. Meyers<sup>1,2</sup>, D. G. Fisher<sup>1,2</sup>, G. L. Reynolds<sup>1,2</sup>, M. Janson<sup>3</sup>, <sup>1</sup>Center for Behavioral Research and Services, Long Beach, CA, <sup>2</sup>California State University, Long Beach, Long Beach, CA, <sup>3</sup>Office of AIDS Programs and Policy, Los Angeles County Department of Public Health, Los Angeles, CA
- 109 High-risk behaviors and infectious disease spread among adolescents
  M. D. Scur¹, M. E. Pagano¹, B. F. Rodriguez², S. L. Lancaster³, S. E. Melka⁴, ¹Psychiatry, Case Western Reserve University School of Medicine, Cleveland, OH, ²Psychology, Southern Illinois University Carbondale, Carbondale, IL, ³Psychology, Drake University, Des Moines, IA, ⁴Postdeployment Mental Health, Clement J. Zablocki VA Medical Center, Milwaukee, WI
- Substance use, depression, and punishment beliefs among lost-to-care and engaged HIV patients in St. Petersburg, Russian Federation

   A. Pecoraro, C. Royer-Malvestuto, G. E. Woody, Psychiatry, University of Pennsylvania,
   Philadelphia, PA
- 111 Relationship between substance abuse treatment outcome and sexual risk behaviors H. Newville<sup>1</sup>, J. Sorensen<sup>1</sup>, D. Calsyn<sup>2</sup>, <sup>1</sup>University of California, San Francisco, San Francisco, CA, <sup>2</sup>University of Washington, Seattle, WA
- The influence of neurocognitive impairment on HIV risk-reduction outcomes among opioid-dependent patients
   M. Sadeghi<sup>1,2</sup>, I. Ezeabogu<sup>1,2</sup>, M. Copenhaver<sup>1,2</sup>, <sup>1</sup>Dept of Allied Health Sciences, University of Connecticut, Storrs, CT, <sup>2</sup>Center for Health, Intervention, & Prevention (CHIP), University of Connecticut, Storrs, CT
- 113 The contexts of substance use among youth living with HIV/AIDS

  A. Duncan¹, R. Ahmed², T. Burrell-Piggott³, N. VanDevanter⁴, K. Siegel³, ¹Johns Hopkins
  Bloomberg School of Public Health, Baltimore, MD, ²University of Waterloo, Waterloo, ON,
  Canada, ³Columbia University, New York, NY, ⁴New York University, New York, NY

- 114 Female partners of opioid-injecting men in the Republic of Georgia
  I. O. Lund¹, I. Kirtadze², D. Otiashvili², K. O'Grady³, H. E. Jones⁴, ¹Norwegian Centre for Addiction Research, University of Oslo, Oslo, Norway, ²Addiction Research Center, Union Alternative Georgia, Tbilisi, Georgia, ³University of Maryland, College Park, MD, ⁴RTI International, Research Triangle Park, NC
- 115 Training counselors on an HIV risk-reduction intervention: How much practice is enough?

  M. Hatch-Maillette<sup>1</sup>, D. Calsyn<sup>1</sup>, S. Turnbull<sup>2</sup>, M. Robinson<sup>3</sup>, <sup>1</sup>Alcohol & Drug Abuse Institute,
  University of Washington, Seattle, WA, <sup>2</sup>Howard University, Washington, DC, <sup>3</sup>Wake Forest
  University, Winston-Salem, NC
- Determinants of commitment to change in HIV primary care patients receiving a drinking-reduction brief motivational interview
   P. Amrhein, E. Aharonovich, D. Hasin, Columbia University, New York, NY
- 117 Motivational interviewing reduces smoking in women living with HIV/AIDS
  J. Manuel¹, J. L. Sorensen¹, P. J. Lum², N. Hengl¹, ¹UCSF, San Francisco, CA, ²University of California, San Francisco, San Francisco, CA
- 118 Barriers to enrollment in HIV care among HIV-positive PWIDs in Odessa, Ukraine
  T. K. Kiriazova<sup>1,2</sup>, O. Neduzhko<sup>2,3</sup>, O. Postnov<sup>3</sup>, I. Perehinets<sup>4</sup>, <sup>1</sup>HIV/AIDS Programs, NGO
  "Future Without AIDS", Odessa, Ukraine, <sup>2</sup>Ukrainian Institute on Public Health Policy, Kiev,
  Ukraine, <sup>3</sup>Ukrainian I.I.Mechnikov Anti-Plague Research Institute, Kiev, Ukraine, <sup>4</sup>WHO CO
  in Ukraine, Kiev, Ukraine
- 119 Structural level interventions to increase needle/syringe access for preventing HIV and hepatitis C among people who inject drugs in low- and middle-income countries: An international systematic review

  J. Feelemyer¹, D. C. Des Jarlais¹, S. Modi¹, H. Hagan², ¹Baron Edmond de Rothschild Chemical Dependency Institute, Beth Israel Medical Center, New York, NY, ²College of
- Rapid test for HCV is a new and very interesting strategy. A study for 194 drug users in a French center: CSAPA 52
  P. Melin<sup>1,3,4</sup>, A. Hapca<sup>1</sup>, A. Hij<sup>1,4</sup>, M. Marc<sup>3</sup>, J. Volant<sup>2</sup>, E. Merlet<sup>2</sup>, P. Courty<sup>5</sup>, <sup>1</sup>General Hospital, Saint Dizier, France, <sup>2</sup>Sos Hepatites, Paris, France, <sup>3</sup>Csapa 52, Saint Dizier, France, <sup>4</sup>Utep, Saint Dizier, France, <sup>5</sup>CHU de Clermont-Ferrand, Clermont Ferrand, France

Nursing, New York University, New York, NY

- Linking drug users to hepatitis C care: Utilizing infographics to depict heterogeneous outcomes
   C. McKnight¹, C. L. Masson², J. Gregory¹, A. E. Jordan¹, C. M. Young¹, N. Hengl²,
   R. Seewald¹, D. C. Des Jarlais¹, M. Khalili², S. Dominy², J. L. Sorensen², D. C. Perlman¹, ¹Beth Israel Medical Center, New York, NY, ²San Francisco General Hospital, University of California, San Francisco, CA
- Motivational-enhanced case management utilization and attendance of HCV clinical evaluations
   A. E. Jordan¹, C. L. Masson², K. L. Delucchi², C. McKnight¹, N. Hengl², C. Young¹,
   M. Khalili², A. Min¹, R. M. Seewald¹, D. C. Des Jarlais¹, J. L. Sorensen², D. C. Perlman¹,
   ¹Department of Infectious Diseases, Beth Israel Medical Center, New York, NY, ²Department of Psychiatry, University of San Francisco, San Francisco, CA
- 123 Correlates of HCV infection among MMT patients in Shanghai, China H. Zhang<sup>1,2</sup>, S. Chen<sup>1</sup>, J. Wang<sup>1</sup>, J. Du<sup>3</sup>, M. Chawarski<sup>2</sup>, R. Schottenfeld<sup>2</sup>, <sup>1</sup>Shanghai Yangpu Mental Health Center, Shanghai, China, <sup>2</sup>Yale University, New Haven, CT, <sup>3</sup>Shanghai Mental Health Center, Shanghai, China

- 124 A mixed methods approach to identifying factors related to voluntary HIV testing among injection drug users in Shanghai, China

  J. Du¹, C. Lombardi², E. Evans³, M. Zhao¹, Y. Meng², ¹Shanghai Mental Health Center, Shanghai, China, ²UCLA, Center for Health Policy Research, Los Angeles, CA, ³UCLA, Integrated Substance Abuse Programs, Los Angeles, CA
- 125 Risk factors for HCV seroconversion in MMT programs in Wuhan, China W. Zhou², P. Liu², L. Luo², R. Schottenfeld¹, M. C. Chawarski¹, ¹Psychiatry, Yale University School of Medicine, New Haven, CT, ²Division of HIV/AIDS Prevention, Wuhan Center for Disease Control & Prevention, Wuhan, China
- Occult hepatitis B among in-treatment non-injecting drug users in West Central Mexico
  O. Campollo<sup>1,2</sup>, S. Roman<sup>1</sup>, A. Panduro<sup>1,2</sup>, G. Hernandez<sup>1</sup>, L. Diaz-Barriga<sup>3</sup>,
  J. K. Cunningham<sup>4</sup>, <sup>1</sup>Center of Studies on Alcohol and Addictions, Guadalajara University,
  Guadalajara, Mexico, <sup>2</sup>Servicio de Biologia Molecular, Hospital Civil de Guadalajara,
  Guadalajara, Mexico, <sup>3</sup>Depto. Investigación, Centros de Integración Juvenil A.C., Mexico,
  Mexico, <sup>4</sup>Family and Community Medicine, The University of Arizona, Tucson, AZ
- 127 Motivational-enhanced case management for hepatitis care coordination is associated with reduced alcohol use
  C. L. Masson¹, K. L. Delucchi¹, M. Khalili¹, N. Hengl¹, C. McKnight², A. E. Jordan², A. Min², R. M. Seewald², D. C. Des Jarlais², J. L. Sorensen², D. C. Perlman², ¹Psychiatry, University of California, San Francisco, San Francisco, CA, ²Infectious Diseases, Beth Israel Medical Center, New York, NY
- 128 Lifetime alcohol use and liver fibrosis in a cohort of HIV-infected adults with alcohol problems D. Fuster, J. I. Tsui, D. M. Cheng, E. K. Quinn, C. Bridden, D. Nunes, R. Saitz, J. H. Samet, Boston University, Boston, MA

#### **TECHNOLOGY**

- 129 Utilization of communication technology by substance abuse treatment patients
  E. A. McClure<sup>1</sup>, S. P. Acquavita<sup>2</sup>, K. Stoller<sup>1</sup>, C. H. Molzon<sup>3</sup>, M. L. Stitzer<sup>1</sup>, <sup>1</sup>Psychiatry and
  Behavioral Sciences, Johns Hopkins University, Baltimore, MD, <sup>2</sup>Social Work, University of
  Cincinnati, Cincinnati, OH, <sup>3</sup>Psychology, Loyola College, Baltimore, MD
- Characterizing a profile of acute cocaine exposure in the laboratory using remote physiological monitoring
   J. H. Yoon, N. M. Arnoudse, R. S. Shah, S. P. Apodaca, R. De La Garza II, Psychiatry and Behavioral Research, Baylor College of Medicine, Houston, TX
- 131 Cognitive functioning of methadone maintenance clients engaged in a web-based psychosocial intervention
  - M. C. Acosta<sup>1</sup>, H. Guarino<sup>1</sup>, L. A. Marsch<sup>2</sup>, <sup>1</sup>National Development and Research Institutes, New York, NY, <sup>2</sup>Darmouth College, Hanover, NH
- Feasibility and validity of Ecological Momentary Assessment in alcohol-, tobacco-, cannabis-and opiate-dependent patients
   F. Serre¹, M. Fatseas¹, J. Swendsen², M. Auriacombe¹, ¹Addiction Psychiatry (CNRS USR 3413), Universite Bordeaux Segalen, Bordeaux, France, ²CNRS UMR 5287 INCIA, Universite Bordeaux Segalen, Bordeaux, France
- Implementation of an electronic information system to enhance practice at an opioid treatment program
   L. S. Brown, M. Lin, S. A. Kritz, R. Zavala, Medical Services, Research & Information
  - Technology, ARTC, Brooklyn, NY

#### TREATMENT I

- The short inventory of problems revised (SIP-R): Psychometric properties in English and Spanish-speaking populations
   B. D. Kiluk¹, J. Dreifuss², K. M. Carroll¹, ¹Yale School of Medicine, West Haven, CT, ²Harvard Medical School, Belmont, MA
- 135 Comparative study of substance disorder symptom hierarchy by type of substance and age M. L. Dennis<sup>1</sup>, K. J. Conrad<sup>1</sup>, K. M. Conrad<sup>2</sup>, C. K. Scott<sup>1</sup>, <sup>1</sup>Chestnut Health Systems, Normal, IL, <sup>2</sup>Program Metrics, Oak Park, IL
- The ability of single screening questions for unhealthy alcohol and other drug use to identify dependence in primary care
   R. Saitz<sup>1,2</sup>, D. M. Cheng<sup>1,2</sup>, D. Allensworth-Davies<sup>2</sup>, M. Winter<sup>2</sup>, P. C. Smith<sup>1,2</sup>, <sup>1</sup>Boston Medical Center, Boston, MA, <sup>2</sup>Boston University, Boston, MA
- 137 The Global Appraisal of Individual Needs: A validation of 21 baseline measures of severity to the traditional and the more conservative Rasch measurement models

  K. M. Conrad¹, K. J. Conrad², M. L. Dennis², ¹Program Metrics, Oak Park, IL, ²Chestnut Health Systems, Normal, IL
- 138 Predictors of early engagement in substance abuse treatment: Preliminary analyses
  J. McKay<sup>1</sup>, J. Cacciola<sup>1,2</sup>, M. Drapkin<sup>1</sup>, M. Ivey<sup>1</sup>, D. Van Horn<sup>1</sup>, A. Mericle<sup>2</sup>, A. Brooks<sup>2</sup>,
  C. Denis<sup>1,2</sup>, J. Miles<sup>1,2</sup>, A. Camilleri<sup>2</sup>, <sup>1</sup>University of Pennsylvania, Philadelphia, PA, <sup>2</sup>Treatment Research Institute, Philadelphia, PA
- 139 Does clinical monitoring impact treatment outcomes?

  J. Cacciola<sup>1,2</sup>, A. Camilleri<sup>1</sup>, T. Kolwicz<sup>1</sup>, A. Brooks<sup>1</sup>, A. Alterman<sup>1,2</sup>, <sup>1</sup>Treatment Research Institute, Philadelphia, PA, <sup>2</sup>University of Pennsylvania, Philadelphia, PA
- 140 If you schedule it, they will come...or will they? Factors associated with workshop session attendance and employment outcomes in drug-dependent men and women

  L. Keyser-Marcus<sup>1</sup>, L. Safford<sup>1</sup>, N. Snead<sup>2</sup>, T. Rieckmann<sup>3</sup>, D. Svikis<sup>1</sup>, L. Thacker<sup>1</sup>, M. Stitzer<sup>4</sup>,

  <sup>1</sup>Virginia Commonwealth University, Richmond, VA, <sup>2</sup>Chesterfield CSB, Richmond, VA,

  <sup>3</sup>Oregon Health & Science University, Portland, OR, <sup>4</sup>Johns Hopkins University,

  Baltimore, MD
- 141 Drug and alcohol abuse in New York State clinics: Prognostic predictors K. Walitzer, C. Barrick, K. H. Dermen, K. Shyhalla, Research Institute on Addictions, Buffalo, NY
- 142 The influence of metropolitan location and homelessness on treatment completion M. Hawkins<sup>1</sup>, G. Stahler<sup>1</sup>, K. Eyrich-Garg<sup>2</sup>, <sup>1</sup>Geography and Urban Studies, Temple University, Philadelphia, PA, <sup>2</sup>School of Social Work, Temple University, Philadelphia, PA
- The Women's Recovery Group Study: Participant characteristics and sample generalizability S. F. Greenfield<sup>1,2</sup>, D. Sugarman<sup>1,2</sup>, J. Kaufman<sup>2</sup>, G. Bailey<sup>3,4</sup>, H. Connery<sup>1,2</sup>, M. Crisafulli<sup>2</sup>, G. Fitzmaurice<sup>1,2</sup>, C. Freid<sup>1,2</sup>, M. Rapoza<sup>4</sup>, J. Rodolico<sup>1,2</sup>, <sup>1</sup>Harvard Medical School, Belmont, MA, <sup>2</sup>McLean Hospital, Belmont, MA, <sup>3</sup>Brown University, Providence, RI, <sup>4</sup>Stanley Street Treatment and Resources, Fall River, MA
- 144 Personal social networks of women in residential and outpatient substance abuse treatment:
   Changes over 12 months
   M. Min¹, E. M. Tracy¹, H. Kim¹, S. Brown¹, C. McCarty², A. Laudet³, M. Jun¹, ¹Case Western Reserve University, Cleveland, OH, ²University of Florida, Gainesville, FL, ³National Development and Research Institutes, Inc, New York City, NY

- 145 Twice-stigmatized: Provider's perspectives on drug-using women in the Republic of Georgia I. Kirtadze<sup>1</sup>, D. Otiashvili<sup>1</sup>, K. O'Grady<sup>2</sup>, W. Zule<sup>3</sup>, E. Krupitsky<sup>4</sup>, W. Wechsberg<sup>3</sup>, H. Jones<sup>3</sup>, 

  <sup>1</sup>Addiction Research Center, Alternative Georgia, Tbilisi, Georgia, <sup>2</sup>Department of Psychology, 
  University of Maryland, College Park, MD, <sup>3</sup>RTI International, Research Triangle Park, NC, 

  <sup>4</sup>Department of Addictions, Bekhterev Research Psychoneurological Institute, St. Petersburg, 
  Russian Federation
- Women-only treatment, service system exposure, and drug use abstinence among mothers 10 years after substance abuse treatment
   L. Li, E. Evans, A. Metchik, Y. Hser, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- The state of clinical supervision in community-based substance abuse treatment programs: A survey of outpatient treatment providers in the Mid-Atlantic and Mountain West ATTC regions P. K. Horvatich², N. A. Roget¹, J. A. Hartje¹, ¹Center for the Application of Substance Abuse Technologies, University of Nevada, Reno, Reno, NV, ²Department of Psychiatry, Virginia Commonwealth University, Richmond, VA
- Assessing the penetration of SBIRT training: A survey of counseling educators
   N. A. Roget, J. A. Hartje, Center for the Application of Substance Abuse Technologies,
   University of Nevada, Reno, Reno, NV
- Therapist training in MI determines patient commitment strength: Results from a randomized trial of community-based counselors
   J. L. Smith, P. C. Amrhein, K. Carpenter, A. Brooks, E. Nunes, Psychiatry, Columbia University, New York, NY
- 150 *The temporal relationship between psychological climate, work attitude, and therapist turnover* B. Garner, B. D. Hunter, Chestnut Health Systems, Normal, IL
- 151 Residential drug treatment clinics in Jalisco, Mexico: Staff and service characteristics
  J. K. Cunningham<sup>1</sup>, O. Campollo<sup>2,3</sup>, F. Diaz<sup>4</sup>, C. M. Prado<sup>4</sup>, <sup>1</sup>Dept. Family and Community
  Medicine, The University of Arizona, Tucson, AZ, <sup>2</sup>Center of Studies on Alcohol and
  Addictions, Guadalajara University, Guadalajara, Mexico, <sup>3</sup>Biología Molecular en Medicina,
  Hospital Civil de Guadalajara, Guadalajara, Mexico, <sup>4</sup>Informatics, State Council for
  Addictions of Jalisco (CECAJ), Guadalajara, Mexico
- Evidence-based multimedia toolkits durably improve counselor adherence in group counseling with minimal training: 6-month follow-up results
   A. C. Brooks¹, D. Knoblach¹, J. Fairfax-Columbo¹, C. M. Carpenedo¹, D. Carise²,
   K. C. Kirby¹,³,¹Behavioral Treatments and Applications, Treatment Research Institute,
   Philadelphia, PA,²Phoenix House, New York, NY,³University of Pennsylvania School of Medicine, Philadelphia, PA

### **Symposium VII**

Flores 4 3:15 - 5:15 PM

# DEATHS DURING AND AFTER OPIOID TREATMENT: RESULTS FROM STUDIES IN THE U.S., THE U.K., THE E.U., AND AUSTRALIA

Chairs: Petra Jacobs and Walter Ling

3:15 Mortality risks during and after methadone treatment in general practitioners' offices: Results from large UK and EU cohorts

Matthew Hickman, University of Bristol, School of Social and Community Medicine, Bristol, United Kingdom

- 3:40 Mortality risks during and after buprenorphine, methadone and naltrexone treatments in patients with opioid addiction in Australia
  - Louisa Degenhardt, National Drug and Alcohol Research Centre, Randwick, NSW, Australia
- 4:05 Mortality after randomization to methadone versus Suboxone: A multisite prospective long-term follow-up study
  - Yih-ing Hser, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- 4:30 *The association between opioid prescribing patterns and opioid overdose-related deaths* Frederic C. Blow, University of Michigan Medical School, Ann Arbor, MI
- 4:55 Changes in tolerance to different opioid agonists and antagonists during and after addiction or pain treatments, overdose related risks and opiate receptor mechanisms

  Mary Jeanne Kreek, Rockefeller University, New York, NY

### Symposium VIII

Flores 5 3:15 - 5:15 PM

# RECENT ADVANCES IN MEDICATIONS DEVELOPMENT FOR THE TREATMENT OF SUBSTANCE USE DISORDERS

Chairs: David McCann and Jane B. Acri

- 3:15 *The Actelion orexin-1 receptor antagonist program*Michel Steiner, Actelion Pharmaceuticals Ltd, Allschwil, Switzerland
- 3:40 Preclinical pharmacological characterization of structurally unique, potent kappa-opioid receptor antagonists in animal models of alcohol dependence and mood disorders Linda Rorick Kehn, Eli Lilly and Company, Indianapolis, IN
- 4:05 *CP-115: A second-generation GABA aminotransferase inhibitor* Steven Miller, Catalyst Pharmaceutical Partners, Coral Gables, FL
- 4:30 Development of TV-1380, an albumin-fused, mutated BChE for cocaine dependence Merav Bassan, Teva Pharmaceutical Industries, Netanya, Israel
- 4:55 Discussant
  David McCann, NIDA/NIH, Bethesda, MD

### **Oral Communications 9**

Flores 6-8 3:15 - 5:15 PM

#### THE KIDS AREN'T ALRIGHT: POLYDRUG ABUSE IN TEENS

Chairs: Matthew J. Worley and Geetha Subramaniam

- 3:15 *Transitions in substance use, abuse, and dependence status over time in conduct-disordered adolescents* 
  - M. J. Worley<sup>1</sup>, S. Brown<sup>2</sup>, M. Stallings<sup>2</sup>, C. Hopfer<sup>2</sup>, J. Hewitt<sup>2</sup>, <sup>1</sup>San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA, <sup>2</sup>University of Colorado, Denver, CO
- 3:30 Reliability of nonmedical prescription drug use items designed for the Youth Risk Behavior Survey
  - R. M. Weiler<sup>1</sup>, J. D. Haddox<sup>2</sup>, L. N. Pealer<sup>3</sup>, T. E. Barnett<sup>3</sup>, S. J. Senick<sup>1</sup>, S. P. Rollins<sup>1</sup>, <sup>1</sup>Health Education & Behavior, University of Florida, Gainesville, FL, <sup>2</sup>Health Policy, Purdue Pharma L.P., Stamford, CT, <sup>3</sup>Behavioral Science & Community Health, University of Florida, Gainesville, FL

- 3:45 Parent-adolescent interactions and adolescent substance use
  T. Chaplin, J. Simmons, R. Sinha, L. C. Mayes, R. E. Hommer, M. J. Crowley, Psychiatry, Yale
  University School of Medicine, New Haven, CT
- 4:00 Teaching juvenile and family court judges about the neuroscience of addiction: Implications for influencing dispositional decisions in juvenile court
   J. A. Hartje, N. A. Roget, Center for the Application of Substance Abuse Technologies, University of Nevada, Reno, Reno, NV
- 4:15 Differential performance across multiple measures of impulsivity among children with family histories of substance use disorders
  - A. Acheson, N. E. Charles, C. W. Mathias, D. M. Dougherty, UTHSCSA, San Antonio, TX
- 4:30 *Misuse of marijuana and controlled medications by adolescents: Parental monitoring and other risk factors*C. J. Boyd<sup>1</sup>, J. A. Cranford<sup>2</sup>, P. Ross-Durow<sup>1</sup>, S. E. McCabe<sup>1</sup>, <sup>1</sup>Institute for Research on Women
  - C. J. Boyd<sup>1</sup>, J. A. Cranford<sup>2</sup>, P. Ross-Durow<sup>1</sup>, S. E. McCabe<sup>1</sup>, <sup>1</sup>Institute for Research on Women and Gender, University of Michigan, Ann Arbor, MI, <sup>2</sup>Psychiatry, University of Michigan, Ann Arbor, MI
- 4:45 Comparisons of treatment outcomes for adolescents with problem use of heroin vs. non-heroin opioids
  - G. Subramaniam<sup>1</sup>, M. Dennis<sup>2</sup>, M. Ives<sup>2</sup>, <sup>1</sup>Center for Clinical Trials Network, NIDA, Bethesda, MD, <sup>2</sup>GAIN Coordinating Center, Chestnut Health Systems, Normal, IL
- 5:00 Gender differences in substance use among monoracial/ethnic and biracial/ethnic youth and young adults: Results from a U.S. population-based survey

  T. T. Clark<sup>1</sup>, A. B. Nguyen<sup>2</sup>, J. Kropko<sup>3</sup>, L. Wu<sup>4</sup>, <sup>1</sup>School of Social Work, University of North Carolina at Chapel Hill, Chapel Hill, NC, <sup>2</sup>Harvard University, Boston, MA, <sup>3</sup>Columbia University, New York, NY, <sup>4</sup>Department of Psychiatry of Behavioral Sciences, Duke University School of Medicine, Durham, NC

### **Oral Communications 10**

Flores 1-3 3:15 - 5:15 PM

# REINFORCING EFFECTS OF DRUGS: CROSS-SPECIES COMPARISONS

Chairs: Amy K. Goodwin and Mikhail Koffarnus

- 3:15 Abuse liability evaluation of the mGlu5 antagonists MPEP and MTEP M. Ellgren, P. Hammar, M. D. Swedberg, AstraZeneca R&D, Sodertalje, Sweden
- 3:30 Revisiting the reinforcing effects of hallucinogens in the laboratory
  A. K. Goodwin, N. A. Ator, School of Medicine, Johns Hopkins University, Baltimore, MD
- 3:45 Effects of neonatal visceral pain on discriminative stimulus and reinforcing effects of morphine in rats
  - A. P. Norwood<sup>1,3</sup>, E. D. Al-Chaer<sup>2</sup>, W. E. Fantegrossi<sup>3</sup>, <sup>1</sup>Interdisciplinary Biomedical Sciences, University of Arkansas for Medical Sciences, Little Rock, AR, <sup>2</sup>Center for Pain Research, University of Arkansas for Medical Sciences, Little Rock, AR, <sup>3</sup>Department of Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR
- 4:00 Self-administration of prescription opioids in opioid abusers with and without chronic pain S. K. Vosburg<sup>1</sup>, J. M. Manubay<sup>1</sup>, S. Mogali<sup>1</sup>, M. A. Sullivan<sup>1</sup>, P. Roux<sup>2</sup>, Z. D. Cooper<sup>1</sup>, J. D. Jones<sup>1</sup>, E. A. Walker<sup>3</sup>, S. D. Comer<sup>1</sup>, <sup>1</sup>Substance Abuse, Columbia University/NYS Psychiatric Institute, New York, NY, <sup>2</sup>INSERM, Marseille, France, <sup>3</sup>Temple University, Philadelphia, PA

4:15 Genetically influenced deficits in inhibitory control are associated with propensity for addictionrelated behaviors in mice

C. Cervantes<sup>1</sup>, J. D. Jentsch<sup>2</sup>, <sup>1</sup>Semel Institute for Neuroscience and Human Behavior, University of California at Los Angeles, Los Angeles, CA, <sup>2</sup>Psychology Department, University of California at Los Angeles, Los Angeles, CA

- 4:30 *Impulsivity and d-amphetamine self-administration*T. H. Kelly, D. C. Lee, G. Robbins, C. A. Martin, J. A. Lile, University of Kentucky, Lexington, KY
- 4:45 Delay-discounting of food and remifentanil in rhesus monkeys responding under a food vs. drug choice procedure

D. R. Maguire<sup>1</sup>, L. R. Gerak<sup>1</sup>, C. P. France<sup>1,2</sup>, <sup>1</sup>Department of Pharmacology, UTHSCSA, San Antonio, TX, <sup>2</sup>Department of Psychiatry, UTHSCSA, San Antonio, TX

5:00 Additive effects of smoking status and obesity on delay discounting and social discounting M. Koffarnus<sup>1</sup>, E. T. Mueller<sup>1</sup>, D. P. Jarmolowicz<sup>1</sup>, K. M. Gatchalian<sup>1</sup>, C. Franck<sup>1,2</sup>, W. K. Bickel<sup>1,3</sup>, <sup>1</sup>Advanced Recovery Research Center, Virginia Tech Carilion Research Institute, Roanoke, VA, <sup>2</sup>Statistics, Virginia Tech, Blacksburg, VA, <sup>3</sup>Psychology, Virginia Tech, Blacksburg, VA

Film Night Capra

7:00 - 9:00 PM

**28 DAYS** (2000) Starring Sandra Bullock

### Workshop IX

Flores 4

8:00 - 10:00 PM

# WHAT'S NEW IN NIDA'S NATIONAL DRUG ABUSE TREATMENT CLINICAL TRIALS NETWORK? FINDINGS AND OBSERVATIONS FROM RECENT TRIALS

Chairs: David Liu and Udi Ghitza

Effects of cocaine use on health-related quality of life among participants treated with buprenorphine or methadone maintenance in the CTN Starting Treatment with Agonist Replacement Therapies (START) Study

Andrew Saxon, VAMC, Seattle, WA

Comparisons between stimulant-dependent patients and patients presenting for other substance problems in a trial of a web-based psychosocial intervention

Edward Nunes, New York State Psychiatric Institute, Columbia University College of Physicians and Surgeons, New York, NY

Stimulant abuser groups to engage in 12-Step (STAGE-12): Impact on stimulant use and 12-step engagement

Dennis Donovan, University of Washington, Seattle, WA

Discussant

Theresa Winhusen, University of Cincinnati, Cincinnati, OH

### Workshop X

Flores 5 8:00 - 10:00 PM

## FDA'S CENTER FOR TOBACCO PRODUCTS: OVERVIEW AND RESEARCH PRIORITIES

Chairs: Lucinda Miner and Cathy L. Backinger

Overview of FDA's Center for Tobacco Products
Allison Hoffman, Center for Tobacco Products, FDA, Rockville, MD

Research priorities of the Center for Tobacco Products
Cathy Backinger, Center for Tobacco Products, FDA, Rockville, MD

Communication with the Center for Tobacco Products
Lucinda Miner, Center for Tobacco Products, FDA, Rockville, MD

### Workshop XI

Flores 1-3 8:00 - 10:00 PM

TRAUMA-INFORMED CARE FOR ADOLESCENTS WITH CO-OCCURRING TRAUMA AND SUBSTANCE USE DISORDERS: INTERVENTIONS AND RECENT OUTCOMES WITH DIVERSE ADOLESCENTS

Chairs: Janet C. Titus and Michael L. Dennis

Elements of trauma and their connection to substance abuse: Why integrated treatment is necessary to break the beast

Janet C. Titus, Chestnut Health Systems, Normal, IL

Integrated treatment for adolescents with co-occurring traumatic stress and substance abuse: The trauma systems therapy approach

Luis Flores, Serving Children and Adolescents in Need, Inc. (SCAN), Laredo, TX

Esperanza recovery home: Implementation of TF-CBT within a female youth residential treatment facility

Gabriela Pérez, Serving Children and Adolescents in Need, Inc. (SCAN), Laredo, TX

Addressing the treatment environment and therapeutic approach for lesbian, gay, bisexual and transgender youth and young adults in trauma-informed substance abuse treatment Sally J. Stevens, Southwest Institute for Research on Women, University of Arizona,

Tucson, AZ

Society for Adolescent Substance Abuse Treatment Effectiveness (SASATE) Business Meeting Michael L. Dennis, Chestnut Health Systems, Normal, IL

### Workshop XII

Flores 6-8 8:00 - 10:00 PM

#### MOBILE HEALTH TREATMENT INTERVENTIONS

Chairs: Karran A. Phillips and Brent A. Moore

Implementing automated, mobile ancillary services in opioid treatment settings
Brent Moore, Division of Substance Abuse, Yale University School of Medicine, New
Haven, CT

Screening and brief intervention for alcohol problems via automated telephone: Bringing it to the people

Gail Rose, University of Vermont College of Medicine, Burlington, VT

Utilizing mHealth technologies for data collection and educational interventions in opioid-dependent individuals

Karran Phillips, Intramural Research Program, NIDA, Baltimore, MD

Evaluating the impact of a Smartphone intervention to prevent relapse: Early findings David Gustafson, University of Wisconsin-Madison, Madison, WI

Extending the reach of behavioral treatments for drug-abusing populations through mobile-based interventions: Are we overselling a bill of goods?

Shoshana Kahana, Division of Clinical Neuroscience and Behavioral Research, NIDA/NIH, Bethesda, MD

#### **PUBLIC POLICY FORUM**

Flores 4 8:00 - 9:45 AM

Chairs: William L. Dewey and Martin Y. Iguchi

Introduction

William L. Dewey, VCU, Richmond, VA

Status of federal budgeting and other issues from Capitol Hill Ed Long, VanScoyoc Associates, Washington, DC

Presentation of the Martin and Toby Adler Distinguished Service Award to General Barry McCaffrey, U.S.A. (Retired)

Decreasing addiction with emphasis on the military, veterans, and their families Barry McCaffrey, Consulting Firm, Arlington, VA

Open discussion
William Dewey, VCU, Arlington, VA

### Symposium IX

Flores 4 10:00 - 12:00 PM

## RATS AT RISK? IDENTIFYING TRAITS ASSOCIATED WITH ADDICTION

Chairs: Marilyn E. Carroll and Jonathan Gewirtz

- 10:00 *The dark side of impulsivity: Neural and psychological mechanisms*Jeff W. Dalley, University of Cambridge, Cambridge, United Kingdom
- 10:25 Rats selectively bred for high and low saccharin intake in models of drug reward, aversive effects, impulsivity, and treatment

  Nathan A. Holtz, University of Minnesota, Minneapolis, MN
- 10:50 *Individual differences in vulnerability to addiction: A selectively bred rat model* Shelly B. Flagel, University of Michigan, Ann Arbor, MI
- 11:15 Novelty seeking as a targeting variable for preventive interventions Michael T. Bardo, University of Kentucky, Lexington, KY
- 11:40 Early signs of drug dependence as a marker for vulnerability to addiction Jonathan C. Gewirtz, University of Minnesota, Minneapolis, MN

### Symposium X

Flores 5 10:00 - 11:00 AM

THE NEXT STEP IN NEUROIMAGING RESEARCH INTO EXECUTIVE FUNCTIONING IN SUBSTANCE DEPENDENCE: UNDERLYING MECHANISMS AND CLINICAL IMPLICATIONS

Chairs: Ingmar Franken and Murat Yucel

10:00 *Inhibitory control and craving in heroin-dependent individuals*Murat Yucel, The University of Melbourne, Carlton, VIC, Australia

- 10:20 Neuropsychological deficits and frontostriatal dysfunctions associated with cocaine dependence with and without comorbid personality disorders

  Antonio Verdejo-Garcia, Universidad de Granada, Granada, Spain
- 10:40 The role of dopamine in reduced inhibitory control in substance dependence Maartje M. Luijten, Erasmus University Rotterdam, Rotterdam, Netherlands

#### **Oral Communications 11**

Flores 5 11:15 - 12:15 PM

**NALTREXONE: OFF THE OPIATE PATH** 

Chairs: Margaret Haney and William W. Stoops

- 11:15 Chronic naltrexone modulates marijuana's reinforcing, subjective and cardiovascular effects M. Haney, G. Bedi, Z. D. Cooper, Psychiatry, Columbia University and NY State Psychiatric Institute, NY, NY
- 11:30 Influence of naltrexone pretreatment on the pharmacodynamic effects of tramadol in humans W. W. Stoops<sup>1,2,3</sup>, M. R. Lofwall<sup>1,2,4</sup>, A. J. Siegel<sup>4</sup>, P. A. Nuzzo<sup>2</sup>, S. L. Walsh<sup>1,2,5</sup>, <sup>1</sup>Behavioral Science, University of Kentucky, Lexington, KY, <sup>2</sup>Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY, <sup>3</sup>Psychology, University of Kentucky, Lexington, KY, <sup>4</sup>Psychiatry, University of Kentucky, Lexington, KY, <sup>5</sup>Pharmaceutical Sciences, University of Kentucky, Lexington, KY
- 11:45 Naltrexone reduces the subjective effects of oral d-amphetamine but not smoked cocaine in humans
  - S. Mogali, S. D. Comer, P. A. Saccone, P. Roux, J. D. Jones, Z. D. Cooper, S. K. Vosburg, M. A. Sullivan, E. Rubin, J. M. Manubay, D. M. Martinez, E. A. Walker, M. Haney, R. W. Foltin, Substance Abuse, Columbia University, NYSPI, New York, NY
- 12:00 Screening medications for cocaine dependence treatment using a pre-randomization, abstinence-induction procedure
  - J. Schmitz<sup>1</sup>, C. E. Green<sup>1</sup>, A. L. Stotts<sup>2</sup>, F. G. Moeller<sup>1</sup>, <sup>1</sup>Psychiatry and Behavioral Sciences, University of Texas Houston, Houston, TX, <sup>2</sup>Department of Family and Community Medicine, University of Texas Houston, Houston, TX

### **Oral Communications 12**

Flores 1-3 10:00 - 12:00 PM

# PASSING ON THE PROBLEMS: EFFECTS OF IN UTERO DRUG EXPOSURE

South Carolina School of Medicine, Columbia, SC

Chairs: Loretta P. Finnegan and Natacha DeGenna

- 10:00 Prenatal nicotine exposure modified brain myelination with sex and age differences
  J. Cao<sup>1</sup>, S. Wang<sup>1</sup>, N. M. Gautier<sup>1</sup>, J. B. Dwyer<sup>2</sup>, F. M. Leslie<sup>2</sup>, M. D. Li<sup>1</sup>, <sup>1</sup>University of
  Virginia, Charlottesville, VA, <sup>2</sup>University of California-Irvine, Irvine, CA
- 10:15 Low-dose prenatal IV nicotine exposure increases hypothalamic orexin cell bodies and appositions onto dopamine neurons in the VTA
   M. J. Morgan¹, S. B. Harrod¹, E. M. Stanley², R. T. Lacy¹, J. R. Fadel², ¹Psychology, University of South Carolina, Columbia, SC, ²Pharmacology, Physiology & Neuroscience, University of

- 10:30 Epigenetics of maternal cigarette smoking during pregnancy and child neurobehavioral outcomes
  - V. Knopik<sup>1,3</sup>, M. Maccani<sup>1,2</sup>, J. McGeary<sup>4,1,3</sup>, <sup>1</sup>Div of Behavioral Genetics, RI Hospital/Brown University, Providence, RI, <sup>2</sup>Center for Alcohol and Addiction Studies, Brown University, Providence, RI, <sup>3</sup>Dept of Psychiatry and Human Behavior, Brown University, Providence, RI, <sup>4</sup>Providence VAMC, Providence, RI
- 10:45 Gene-early environment interactions determine cocaine-seeking behavior in mice: A dose-response analysis
  - K. Ploense, A. Carr, D. Maliniak, J. C. Campbell, C. P. Knight, K. K. Szumlinski, T. E. Kippin, Psychological and Brain Sciences, UCSB, Santa Barbara, CA
- 11:00 Associations of white matter tract integrity with impulsivity and behavioral activation system dimensions in prenatally cocaine-exposed adolescents
   K. R. Hamilton<sup>1</sup>, J. Xu<sup>1</sup>, R. Sinha<sup>1,2</sup>, L. C. Mayes<sup>2</sup>, M. N. Potenza<sup>1,2,3</sup>, <sup>1</sup>Psychiatry, Yale School of Medicine, New Haven, CT, <sup>2</sup>Child Study, Yale School of Medicine, New Haven, CT, <sup>3</sup>Neurobiology, Yale School of Medicine, New Haven, CT
- 11:15 Maternal cocaine use and child behavior problems: Role of parenting and child exposure to violence
   Y. Veira, R. Eiden, B. Finger, Research Institute on Addictions University at Buffalo, State University of New York, Buffalo, NY
- 11:30 *Maternal alcohol use and early teenage pregnancy in the offspring of teenage mothers*N. De Genna, M. D. Cornelius, Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, PA
- 11:45 Immune genetic predictors of neonatal abstinence syndrome in methadone-exposed infants A. L. Gordon<sup>1</sup>, M. R. Hutchinson<sup>2</sup>, R. R. Haslam<sup>3</sup>, J. K. Coller<sup>4</sup>, <sup>1</sup>School of Nursing and Midwifery, University of South Australia, Adelaide, SA, Australia, <sup>2</sup>Physiology, University of Adelaide, Adelaide, SA, Australia, <sup>3</sup>Neonatology, Women's and Children's Hospital, Adelaide, SA, Australia, <sup>4</sup>Pharmacology, University of Adelaide, Adelaide, SA, Australia

### **Oral Communications 13**

Flores 6-8 10:00 - 12:00 PM

#### PUBLIC HEALTH BENEFITS OF EXPANDING TREATMENT ACCESS

Chairs: Karen L. Cropsey and Hannah K. Knudsen

- 10:00 Medication-assisted therapy (MAT) in the criminal justice system: A nationally representative survey of drug courts
  - H. Matusow<sup>1</sup>, J. Rich<sup>2</sup>, C. Hardin<sup>4</sup>, S. Dickman<sup>3</sup>, C. Fong<sup>1</sup>, A. Rosenblum<sup>1</sup>, <sup>1</sup>ITSR, National Development and Research Institutes, New York, NY, <sup>2</sup>Brown Medical School, The Miriam Hospital, Providence, RI, <sup>3</sup>Harvard Medical School, Boston, MA, <sup>4</sup>National Drug Court Institute, Alexandria, VA
- 10:15 Factors associated with return to opiate use after release from jail

  K. L. Cropsey¹, C. B. Clark¹, P. S. Hendricks¹, M. C. Waesche¹, C. B. McCullumsmith¹,

  M. Lawler¹, M. L. Stitzer², ¹The University of Alabama at Birmingham, Birmingham, AL,

  ²Johns Hopkins University, Baltimore, MD
- 10:30 Factors that contribute to successful prison-based HIV risk-reduction interventions
  I. Ezeabogu<sup>1,2</sup>, M. Copenhaver<sup>1,2</sup>, <sup>1</sup>Dept of Allied Health Sciences, University of Connecticut,
  Storrs, CT, <sup>2</sup>Center for Health, Intervention, & Prevention (CHIP), University of Connecticut,
  Storrs, CT

- 10:45 The relationship between expansion of opioid agonist treatment and reduction in heroin overdose deaths in Baltimore, Maryland: 1995-2009

  R. P. Schwartz<sup>1,6</sup>, J. Gryczynski<sup>1</sup>, S. G. Mitchell<sup>1</sup>, Y. K. Olsen<sup>2</sup>, J. M. Sharfstein<sup>3</sup>, G. Warren<sup>4</sup>, K. E. O'Grady<sup>5</sup>, J. H. Jaffe<sup>6</sup>, <sup>1</sup>Friends Research Institute, Baltimore, MD, <sup>2</sup>IBR, Baltimore, MD, <sup>3</sup>MD Dept Health and Mental Hygiene, Baltimore, MD, <sup>4</sup>Balto Substance Abuse Systems, Balto, MD, <sup>5</sup>U MD, College Park, MD, <sup>6</sup>U MD School of Medicine, Balto, MD
- 11:00 Integrated substance abuse treatment: Buprenorphine in a primary care clinic G. L. Bailey<sup>1,2</sup>, N. E. Paull<sup>1</sup>, M. D. Stein<sup>2,3</sup>, <sup>1</sup>Department of Research, Stanley Street Treatment and Resources, Inc., Fall River, MA, <sup>2</sup>Warren Alpert Medical School, Brown University, Providence, RI, <sup>3</sup>Butler Hospital, Providence, RI
- 11:15 Availability of mental health services in adolescent treatment facilities impacts client outcomes R. Ramchand<sup>1</sup>, B. A. Griffin<sup>1</sup>, S. Hunter<sup>2</sup>, M. Booth<sup>2</sup>, D. McCaffrey<sup>3</sup>, <sup>1</sup>RAND, Arlington, VA, <sup>2</sup>RAND, Santa Monica, CA, <sup>3</sup>RAND, Pittsburgh, PA
- 11:30 Modeling the transition to offering medications in publicly funded SUD treatment programs
  H. K. Knudsen<sup>1</sup>, P. M. Roman<sup>2</sup>, <sup>1</sup>Behavioral Science, University of Kentucky, Lexington, KY,
  <sup>2</sup>Owens Institute for Behavioral Research, University of Georgia, Athens, GA
- 11:45 The impact of depression on primary care office-based buprenorphine treatment outcomes J. D. Savant<sup>1</sup>, D. T. Barry<sup>2</sup>, B. A. Moore<sup>2</sup>, L. E. Sullivan<sup>2</sup>, C. J. Cutter<sup>2</sup>, M. T. Joy<sup>2</sup>, R. S. Schottenfeld<sup>2</sup>, D. A. Fiellin<sup>2</sup>, <sup>1</sup>APT Foundation, New Haven, CT, <sup>2</sup>Yale University, New Haven, CT

### **Poster Session III (Lunch)**

Fiesta 12:00 - 2:00 PM

Odd-numbered posters manned first hour; Even-numbered, second hour

Set-up time begins Tuesday 3:00 PM Must be removed by Wednesday 2:30 PM

#### LITERATURE REVIEW

- 1 Personality and addictive behaviors: An integrative review of the literature
  A. Graham-Phillips, Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 2 Critical review of substance use and sexual risk behaviors among MSM in NYC bathhouses M. Downing, National Development and Research Institutes, Inc., New York, NY
- 3 A review of culturally sensitive tobacco interventions for adolescents G. Kong, N. Singh, S. Krishan-Sarin, Yale University School of Medicine, New Haven, CT
- 4 Prevention of illicit drug use during the postpartum period G. K. Tzilos<sup>1</sup>, K. Davis<sup>2</sup>, C. Zlotnick<sup>2,3</sup>, <sup>1</sup>Center for Alcohol & Addiction Studies, Brown University, Providence, RI, <sup>2</sup>Women and Infants Hospital, Providence, RI, <sup>3</sup>Department of Psychiatry and Human Behavior, Alpert Medical School of Brown University, Providence, RI
- 5 Review of and recommendations for youth-oriented mental health and substance-use disorder screening tools
  - D. Morisano<sup>1</sup>, B. R. Rush<sup>1,2</sup>, S. Castel<sup>3,2</sup>, <sup>1</sup>Centre for Addiction and Mental Health (CAMH), Toronto, ON, Canada, <sup>2</sup>University of Toronto, Toronto, ON, Canada, <sup>3</sup>Sunnybrook Health Sciences Centre, Toronto, ON, Canada

#### CRIMINAL JUSTICE II

- 6 The relationship between court-mandate status and psychiatric disorders in inpatient drug treatment
  - A. N. Banducci, J. Dahne, K. Chen, J. F. Magidson, S. B. Daughters, C. W. Lejuez, University of Maryland, College Park, MD
- 7 Improving the ethics of consent: Refinement of the Coercion Assessment Scale
  K. L. Dugosh, D. S. Festinger, J. S. Cacciola, D. B. Marlowe, Section on Law and Ethics,
  Treatment Research Institute, Philadelphia, PA
- 8 Brief trauma assessment for screening prisoners in substance abuse treatment G. A. Rowan-Szal, N. Bartholomew, K. Knight, W. Lehman, Institute of Behavioral Research, Texas Christian University, Fort Worth, TX
- 9 Costs and savings of offender drug diversion: An SEM analysis of California's Proposition 36 A. Jaffe, M. D. Anglin, Integrated Substance Abuse Program, University of California, Los Angeles, Los Angeles, CA
- 10 Substance use and problem awareness among drug-involved prisoners in Norway
  P. P. Lobmaier<sup>1,2</sup>, A. H. Berman<sup>3,4</sup>, M. Gossop<sup>2,5</sup>, E. Ravndal<sup>2</sup>, <sup>1</sup>Department of Addiction Medicine, Oslo University Hospital, Oslo, Norway, <sup>2</sup>Norwegian Centre for Addiction Research, University of Oslo, Oslo, Norway, <sup>3</sup>Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, <sup>4</sup>Stockholm Centre for Dependency Disorders, Stockholm, Sweden, <sup>5</sup>National Addiction Centre, King's College, London, United Kingdom
- 11 Trends in illicit drug use in Australian correctional centres
  S. Larney<sup>1,2</sup>, D. Indig<sup>1,2</sup>, <sup>1</sup>Justice Health, Sydney, NSW, Australia, <sup>2</sup>University of NSW, Sydney, NSW, Australia
- 12 Comparing alcohol and other drug problems among juvenile detainees in Australia and the United States
  - D. Indig, Centre for Health Research in Criminal Justice, Justice Health, Pagewood, NSW, Australia
- 13 Methadone with vs. without counseling: Outcomes by parole and probation status S. M. Kelly<sup>1</sup>, K. E. O'Grady<sup>2</sup>, J. H. Jaffe<sup>1,3</sup>, D. Gandhi<sup>3</sup>, R. P. Schwartz<sup>1</sup>, <sup>1</sup>Friends Research Institute, Baltimore, MD, <sup>2</sup>University of MD, College Park, College Park, MD, <sup>3</sup>University of MD, School of Medicine, Baltimore, MD
- 14 Understanding assessment processes for re-entering offenders in Kentucky
  J. L. Duvall<sup>1</sup>, M. Staton-Tindall<sup>2</sup>, J. M. Webster<sup>1</sup>, C. B. Oser<sup>3</sup>, C. G. Leukefeld<sup>1</sup>, <sup>1</sup>Behavioral Science, University of Kentucky, Lexington, KY, <sup>2</sup>Social Work, University of Kentucky, Lexington, KY, <sup>3</sup>Sociology, University of Kentucky, Lexington, KY
- 15 Adaptive programming in drug court: 24-month recidivism outcomes
  A. Harron, K. Dugosh, D. Festinger, D. Marlowe, Law and Ethics, Treatment Research Institute, Philadelphia, PA
- 16 The effect of parental dependency drug court compliance on child welfare outcomes S. Boles, N. K. Young, Children and Family Futures, Irvine, CA
- 17 Sonoma County Dependency Drug Court evaluation outcomes and cost study C. J. Pease, S. Boles, Children and Family Futures, Irvine, CA

#### AMPHETAMINES II

18 Methamphetamine users at treatment admission: How impaired are they?

J. C. Maxwell, Addiction Research Institute, University of Texas at Austin, Austin, TX

- 19 *Joint trajectories of methamphetamine, cannabis, and alcohol use following treatment for methamphetamine use* 
  - M. Brecht, K. Lovinger, Integrated Substance Abuse Programs, UCLA, Los Angeles, CA
- 20 Relation of immediate treatment response and end-of-trial outcomes in placebo-treated methamphetamine-dependent patients
  - M. Brensilver, K. G. Heinzerling, A. N. Swanson, S. J. Shoptaw, UCLA, Los Angeles, CA
- 21 Intensive motivational interviewing for methamphetamine dependence R. Korcha<sup>1</sup>, D. L. Polcin<sup>1</sup>, G. Galloway<sup>2,3</sup>, K. Evans<sup>1</sup>, <sup>1</sup>Public Health Institute, Emeryville, CA, <sup>2</sup>Addiction Pharmacology Research Laboratory, California Pacific Medical Center, San Francisco, CA, <sup>3</sup>New Leaf Treatment Center, Lafayette, CA
- The effects of contingency management on drug use and HIV risk behaviors among heterosexual methamphetamine users
   K. F. Corsi, N. Speer, J. Babuska, R. E. Booth, Psychiatry, University of Colorado Denver, Denver, CO
- 23 Methamphetamine use and diagnosed STD/HIV in the community: United States, 2005-2009 D. Blitchtein, D. A. Barondess, J. P. Troost, J. A. Anthony, Epidemiology, Michigan State University, East Lansing, MI
- 24 Effectiveness of harm reduction substance abuse treatment with methamphetamine-using MSM A. W. Carrico<sup>1</sup>, M. D. Siever<sup>2</sup>, M. V. Discepola<sup>2</sup>, W. J. Woods<sup>1</sup>, <sup>1</sup>Center for AIDS Prevention Studies, University of California, San Francisco, San Francisco, CA, <sup>2</sup>Stonewall Project, San Francisco AIDS Foundation, San Francisco, CA
- 25 Antisocial personality disorder predicts treatment effectiveness in homeless, substancedependent men who have sex with men
  - J. B. Fletcher, C. J. Reback, Friends Research Institute, Inc., Los Angeles, CA
- 26 Correlates of non-partner violence against women who use methamphetamine
  J. Lorvick<sup>1</sup>, W. M. Wechsberg<sup>2</sup>, A. Lutnick<sup>1</sup>, L. D. Wenger<sup>1</sup>, P. Bourgois<sup>3</sup>, A. H. Kral<sup>1</sup>, <sup>1</sup>Urban
  Health Program, RTI International, San Francisco, CA, <sup>2</sup>Substance Abuse Treatment,
  Epidemiology and Intervention Program, RTI International, Research Triangle Park, NC,
  <sup>3</sup>Department of Anthropology, University of Pennsylvania, Philadelphia, PA
- Age-specific risk of starting to engage in extra-medical use of prescription stimulants: United States, 2004-2008
   E. A. Meier, J. P. Troost, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI
- 28 Motives for changing substance use among methamphetamine-using adults
  P. Sheaff, A. Raihan, D. Herbeck, D. Christou, K. Lovinger, L. Rodriguez, M. Brecht,
  Integrated Substance Abuse Programs, UCLA, Los Angeles, CA
- 29 Life stressors associated with interpersonal violence among adult methamphetamine users L. Rodriguez, D. Christou, K. Lovinger, D. Herbeck, P. Sheaff, A. Raihan, M. Brecht, Integrated Substance Abuse Programs, UCLA, Los Angeles, CA
- 30 Anxiety and depression in adults with long histories of methamphetamine use
  D. Christou, K. Lovinger, D. Herbeck, L. Rodriguez, P. Sheaff, A. Raihan, M. Brecht,
  Integrated Substance Abuse Programs, UCLA, Los Angeles, CA
- 31 The influence of alternative reinforcer response cost on methamphetamine choice

  J. A. Bennett<sup>1</sup>, W. W. Stoops<sup>1,2</sup>, C. R. Rush<sup>1,2,3</sup>, <sup>1</sup>Behavioral Science, University of Kentucky,
  Lexington, KY, <sup>2</sup>Psychology, University of Kentucky, Lexington, KY, <sup>3</sup>Psychiatry, University
  of Kentucky, Lexington, KY

- 32 Investigation of baseline factors predicting longitudinal methamphetamine use in two contingency management clinical trials
  - D. Howell, S. McPherson, J. Roll, Program of Excellence in the Addictions, Washington State University, Spokane, WA
- 33 Development of drug counseling for co-occurring heroin and ATS abuse
  V. Kasinather<sup>1</sup>, M. C. Chawarski<sup>2</sup>, M. Mazlan<sup>3</sup>, R. Schottenfeld<sup>2</sup>, <sup>1</sup>Centre for Drug Research,
  Universit Sains Malaysia, Gelugor, Malaysia, <sup>2</sup>School of Medicine, Yale University, New
  Haven, CT, <sup>3</sup>SARC, Muar, Malaysia
- 34 Utility of peer recovery coaches in engaging substance-abusing parents into treatment S. James<sup>1</sup>, R. Rivera<sup>1</sup>, M. Shafer<sup>1</sup>, S. Blackburn<sup>2</sup>, E. Kappas<sup>2</sup>, <sup>1</sup>The Center for Applied Behavioral Health Policy, Arizona State University, Phoenix, AZ, <sup>2</sup>Arizona Department of Economic Security, Division of Children, Youth and Families, Phoenix, AZ

#### ETHNIC DIFFERENCES

- 35 Engagement models for adolescents: Ethnic disparities
  J. E. Becan, D. K. Knight, G. Joe, P. M. Flynn, Institute of Behavioral Research, Texas
  Christian University, Fort Worth, TX
- 36 Peers, monitoring, and externalizing behavior associated with severity of adolescent marijuana use
  - S. R. Ryan, C. Stanger, A. J. Budney, Psychiatry, University of Arkansas for Medical Sciences, Little Rock, AR
- 37 Hookah use among Muslim U.S. college students
  W. Abu-Ras¹, S. Ahmed², C. L. Arfken³, ¹Adelphi University, Garden City, NY, ²The Family and Youth Institute, Canton, MI, ³Wayne State University, Detroit, MI
- 38 Alcohol use, religiosity and social influences among U.S. Muslim college students S. Ahmed¹, W. Abu-Ras², C. L. Arfken³, ¹The Family and Youth Institute, Canton, MI, ²Adelphi University, Garden City, NY, ³Wayne State University, Detroit, MI
- 39 Addressing local substance abuse problems: Binge drinking among Michigan Arab/Chaldeans C. L. Arfken<sup>1</sup>, D. Owens<sup>2</sup>, M. Said<sup>3</sup>, <sup>1</sup>Wayne State University, Detroit, MI, <sup>2</sup>Southeast Michigan Community Alliance, Taylor, MI, <sup>3</sup>Arab Community Center for Economic and Social Services, Dearborn, MI
- 40 Predictors of drug use and binge drinking of mixed-race, Native American, and Caucasian general-population youths: Testing the effect of contextual factors
   H. J. Chen, S. Balan, A. Zerinque, R. K. Price, Department of Psychiatry, Washington University, St. Louis, MO
- 41 African-American women's tobacco and marijuana use: The effects of family history and drug use risk perceptions
  - C. B. Oser<sup>1</sup>, E. Pullen<sup>1</sup>, D. Stevens-Watkins<sup>2</sup>, J. Havens<sup>1</sup>, M. Staton-Tindall<sup>1</sup>, C. Leukefeld<sup>1</sup>, <sup>1</sup>Univ of Kentucky, Lexington, KY, <sup>2</sup>Spalding University, Louisville, KY
- 42 Ethnicity as a moderator of HIV/STD sexual risk reduction groups for women in substance abuse treatment programs
  - E. J. Bell<sup>1</sup>, E. V. Nunes<sup>1</sup>, S. Tross<sup>1</sup>, M. C. Hu<sup>2</sup>, M. Pavlicova<sup>2</sup>, A. N. Campbell<sup>1</sup>, <sup>1</sup>Psychiatry, Columbia University, New York, NY, <sup>2</sup>Columbia University, New York, NY
- 43 Risk of HIV among drug-using African-American women: Trauma, condom use, and sharing pipes
  - D. Stevens-Watkins<sup>1</sup>, C. B. Oser<sup>2</sup>, N. Mitchell<sup>1</sup>, <sup>1</sup>Spalding University, Louisville, KY, <sup>2</sup>University of Kentucky, Lexington, KY

- 44 Racial/ethnic disparities in HIV infection among people who inject drugs: An international systematic review
  - D. C. Des Jarlais<sup>1</sup>, H. A. Bramson<sup>1</sup>, C. Wong<sup>1</sup>, K. Gostnell<sup>1</sup>, J. Cepeda<sup>1</sup>, K. Arasteh<sup>1</sup>, H. Hagan<sup>2</sup>, <sup>1</sup>The Baron Edmond de Rothschild Chemical Dependency Institute, Beth Israel Medical Center, New York, NY, <sup>2</sup>College of Nursing, New York University, New York, NY
- 45 Racial differences of stimulant abusers' prior experiences, expectations, and readiness to engage in 12-step programs
  - K. M. Peavy, S. B. Garrett, S. R. Doyle, D. M. Donovan, Alcohol & Drug Abuse Institute, University of Washington, Seattle, WA
- 46 Differences in pretreatment characteristics and health disparities at intake and 3 months among Asian subgroups
  - V. K. Belur, M. L. Ives, M. L. Dennis, Chestnut Health Systems, Normal, IL
- 47 American Indian/Alaska Native culture and acceptability of a web-based intervention for substance use disorders
  - G. Miele<sup>1</sup>, E. Turrigiano<sup>2</sup>, A. Campbell<sup>1,2</sup>, T. Rieckmann<sup>3</sup>, F. Kropp<sup>4</sup>, E. Nunes<sup>1,2</sup>, <sup>1</sup>Columbia University College of Physicians and Surgeons, New York, NY, <sup>2</sup>New York State Psychiatric Institute, New York, NY, <sup>3</sup>Oregon Health and Sciences University, Portland, OR, <sup>4</sup>Medical University of Cincinnati, Cincinnati, OH
- 48 Culturally tailored nicotine dependence treatment for Korean immigrants
  S. S. Kim, G. Gonzalez, D. M. Ziedonis, Psychiatry, University of Massachusetts Medical School, Worcester, MA

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- 49 Investigation of sensitivity to smoking-related stimuli as a function of initial abstinence duration M. P. Bradstreet<sup>1,2</sup>, S. T. Higgins<sup>1,2</sup>, F. J. McClernon<sup>3</sup>, R. V. Kozink<sup>3</sup>, Y. Washio<sup>1</sup>, A. A. Lopez<sup>1,2</sup>, M. Perry<sup>1</sup>, <sup>1</sup>Psychiatry, University of Vermont, Burlington, VT, <sup>2</sup>Psychology, University of Vermont, Burlington, VT, <sup>3</sup>Psychiatry and Behavioral Sciences, Duke University, Durham, NC
- 50 Breakdown of control toward smoking cues in emerging adult light non-dependent smokers G. DiGirolamo<sup>1,2</sup>, E. Sophis<sup>2</sup>, J. Daffron<sup>2</sup>, K. Gettens<sup>2</sup>, G. Gonzalez<sup>1</sup>, S. Gillespie<sup>2</sup>, <sup>1</sup>Psychiatry, University of Massachusetts, Medical School, Worcester, MA, <sup>2</sup>Psychology, College of the Holy Cross, Worcester, MA
- 51 Newly incident tobacco cigarette smoking and time to first cigarette after waking W. Xue, J. Troost, J. Anthony, Michigan State University, East Lansing, MI
- 52 Characteristics of cigarette use by young adults diagnosed with ADHD in childhood: Results from the longitudinal follow-up of the MTA children

  S. H. Kollins<sup>1</sup>, K. A. Belendiuk<sup>2</sup>, A. L. Howard<sup>3</sup>, S. Shiffman<sup>2</sup>, A. Stehli<sup>4</sup>, B. Molina<sup>2</sup>,
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- 53 Nicotine exposure and suicide: Does route of administration matter?"

  J. P. Troost, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI
- 54 Smoke exposure and cardiovascular risk: Can the risks of smoking ever be modified? C. Wright<sup>1</sup>, K. D. Gibson<sup>2</sup>, R. K. Lanier<sup>1</sup>, <sup>1</sup>Rock Creek Pharmaceuticals, Gloucester, MA, <sup>2</sup>Gibson Consulting, Somerville, MA
- 55 Nicotine withdrawal and heart-rate parasympathetics during smoking cessation: Prospective relations and self-regulatory implications
  - S. A. Dinovo, R. K. Price, A. P. Anokhin, Psychiatry, Washington University in St. Louis School of Medicine, St. Louis, MO

- 56 Does provision of additional nicotine replacement therapy following smoking cessation improve longterm abstinence?
  - L. A. Zawertailo<sup>1,2</sup>, L. Doss<sup>1</sup>, S. Hussain<sup>1</sup>, U. Busto<sup>2</sup>, P. Selby<sup>1,3</sup>, <sup>1</sup>Addictions Program, Centre for Addiction and Mental Health, Toronto, ON, Canada, <sup>2</sup>Dept. of Pharmacology and Toxicology, University of Toronto, Toronto, ON, Canada, <sup>3</sup>Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada
- 57 Aripiprazole effects on cigarette smoking among cocaine users
  P. A. Nuzzo<sup>1</sup>, M. R. Lofwall<sup>1,2,3</sup>, S. L. Walsh<sup>1,2,3</sup>, <sup>1</sup>Center on Drug & Alcohol Research,
  University of Kentucky, Lexington, KY, <sup>2</sup>Behavioral Science, UK, Lexington, KY, <sup>3</sup>Psychiatry,
  UK, Lexington, KY
- 58 Using financial incentives to sustain smoking abstinence among opioid-maintained patients S. C. Sigmon, M. Patrick, K. Saulsgiver, S. Higgins, University of Vermont, Burlington, VT
- 59 Community-based smoking cessation programs: Lessons learned from a randomized clinical trial
  - P. Sheikhattari<sup>1,2</sup>, F. A. Wagner<sup>1,2</sup>, <sup>1</sup>Center for Health Disparity Solutions, Morgan State University, Baltimore, MD, <sup>2</sup>School of Community Health and Policy, Morgan State University, Baltimore, MD
- 60 Contingent vouchers for smoking in substance abusers as adjunct to nicotine patch R. A. Martin<sup>1</sup>, D. J. Rohsenow<sup>2,1</sup>, J. W. Tidey<sup>1</sup>, S. M. Colby<sup>1</sup>, P. M. Monti<sup>1</sup>, <sup>1</sup>Center for Alcohol and Addiction Studies, Brown University, Providence, RI, <sup>2</sup>Providence VA Medical Center, Providence, RI
- 61 Acute topography characteristics of very low nicotine cigarettes with and without nicotine replacement vs. usual-brand cigarettes in smokers with schizophrenia and controls

  J. Tidey, S. M. Colby, Ctr Alcohol & Addiction Studies, Brown University, Providence, RI
- 62 Significant associations of CHRNA2 and CHRNA6 with nicotine addiction in European-American and African-American populations
  J. Z. Ma¹, T. J. Payne², A. D. Van der Vaart⁴, Q. Xu⁴, O. F. Pomerleau³, C. S. Pomerleau³, M. D. Li⁴, ¹Public Health Sciences, University of Virginia, Charlottesville, VA, ²Otolaryngology and Communicative Sciences, University of Mississippi Medical Center, Jackson, MS, ³Psychiatry, University of Michigan, Ann Arbor, MI, ⁴Psychiatry and Neurobehavioral Sciences, University of Virginia, Charlottesville, VA
- 63 New evidence: DAT genotype modulates both withdrawal-driven and cue-driven phenotypes in smokers
  - T. R. Franklin, J. Shin, K. Jagannathan, J. Bender, F. Lohoff, J. Detre, C. P. O'Brien, A. R. Childress, Psychiatry, University of Pennsylvania Perlman School of Medicine, Philadelphia, PA
- 64 Spon2 expression in cigarette smoke-exposed and vitamin D-deficient mice
  M. Maccani<sup>1,2</sup>, T. Dechen<sup>3</sup>, J. Ryu<sup>3</sup>, V. Knopik<sup>1</sup>, J. McGeary<sup>4,1</sup>, M. Crane-Godreau<sup>3,5</sup>, <sup>1</sup>Div
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  Providence, RI, <sup>5</sup>VA Research Facility, White River Junction, VT

#### PRESCRIPTION OPIOID ABUSE

65 Routes of administration and frequency of abuse of OxyContin® and immediate-release oxycodone in a rural Kentucky county following introduction of reformulated OxyContin

A. DeVeaugh-Geiss¹, C. Leukefeld², J. Havens², P. Coplan¹, H. Chilcoat¹, ¹Risk Management and Epidemiology, Purdue Pharma L.P., Stamford, CT, ²Department of Behavioral Science, University of Kentucky, Lexington, KY

- 66 Change in routes of administration for OxyContin and comparators following introduction of reformulated OxyContin® among individuals assessed for substance abuse

  T. A. Cassidy¹, P. Coplan², R. A. Black¹, H. Chilcoat², S. H. Budman¹, S. F. Butler¹,

  ¹Inflexxion, Inc., Newton, MA, ²Purdue Pharma, L.P., Stamford, CT
- 67 Intranasal oxycodone self-administration in sporadic opioid abusers

  L. S. Middleton<sup>1,2</sup>, P. A. Nuzzo<sup>2</sup>, M. R. Lofwall<sup>1,2,3</sup>, A. J. Siegel<sup>3</sup>, S. L. Walsh<sup>1,2,3</sup>, <sup>1</sup>Behavioral Science, University of Kentucky, Lexington, KY, <sup>2</sup>Center on Drug & Alcohol Research, University of Kentucky, Lexington, KY, <sup>3</sup>Psychiatry, University of Kentucky, Lexington, KY
- 68 Impact of reformulated OxyContin® on rates of abuse through oral and non-oral routes among individuals assessed in substance abuse treatment
  H. Chilcoat¹, P. Coplan¹, T. Cassidy², R. Black², C. Landau¹, S. Budman², S. Butler², ¹Purdue Pharma L.P., Stamford, CT, ²Inflexxion, Inc, Newton, MA
- 69 Changes in prescription and OxyContin® drug abuse patterns in a rural Kentucky county
  C. Leukefeld, L. Clevenger, A. Young, J. Havens, Behavioral Science and Center on Drug and
  Alcohol Research, University of Kentucky, Lexington, KY
- 70 Reduction in OxyContin® diversion cases following the introduction of reformulated OxyContin S. G. Severtson¹, B. B. Bartelson¹, J. Davis¹, A. Muñoz², M. Schneider², H. Surratt³, P. Coplan⁴, H. Chilcoat², R. C. Dart¹, ¹RMPDC, DHHA, Denver, CO, ²Johns Hopkins U, Baltimore, MD, ³Nova Southeastern U, Ft Lauderdale, FL, ⁴Purdue Pharma L.P., Stamford, CT, ⁵U of Colorado Denver School of Medicine, Denver, CO
- National changes in OxyContin, other oxycodone, and heroin exposures reported to poison centers with introduction of reformulated OxyContin®
   P. Coplan, H. Kale, L. Sandstrom, H. D. Chilcoat, Risk Management and Epidemiology, Purdue Pharma, Stamford, CT
- 72 Relative attractiveness of reformulated OxyContin®: comparative assessment of tampering potential and recreational drug user preferences for opioid formulations

  E. Sellers², P. J. Perrino¹, S. Harris¹, S. Colucci¹, ¹Clinical Pharmacology, Purdue Pharma LP, Stamford, CT, ²DL Global Partners, Toronto, ON, Canada
- 73 *Health and social characteristics of prescription opioid-abusing men* M. Buttram, S. P. Kurtz, Nova Southeastern University, Coral Gables, FL
- 74 Sleep quality and stress reactivity among individuals with prescription opioid dependence E. E. Hartwell, K. T. Brady, S. E. Back, Psychiatry & Behavioral Sciences, MUSC, Charleston, NC
- 75 Relationship between amount of opioid used, opioid withdrawal and pain severity in prescription opioid-dependent adults
  M. R. Lofwall<sup>2,1,3</sup>, S. Babalonis<sup>1,2</sup>, P. A. Nuzzo<sup>1</sup>, A. J. Siegel<sup>2</sup>, S. L. Walsh<sup>1,2,3</sup>, <sup>1</sup>Center on Drug and Alcohol Research, University of Kentucky (UK), Lexington, KY, <sup>2</sup>Psychiatry, UK, Lexington, KY, <sup>3</sup>Behavioral Science, UK, Lexington, KY
- Buprenorphine induction for prescription opioid users: Findings from the Prescription Opiate Addiction Treatment Study (POATS)
   S. Nielsen¹, M. Hillhouse¹, L. Mooney¹, J. Sharpe Potter², R. Weiss³, J. Lee⁴, W. Ling¹, ¹Integrated Substance Abuse Programs, UCLA, Los Angeles, CA, ²University of Texas Health Science Centre, San Antonio, TX, ³McLean Hospital, Belmont, MA, ⁴NYU, New York, NY
- 77 Tramadol abuse and its association with depression
  S. Momtazi, R. Rawson, Integrated Substance Abuse Programs/Semel Institute, UCLA, Los Angeles, CA

- 78 Quality of life over time in the multi-site CTN Prescription Opioid Addiction Treatment Study R. Weiss<sup>1,2</sup>, M. L. Griffin<sup>1,2</sup>, J. Potter<sup>1,2,3</sup>, H. Connery<sup>1,2</sup>, <sup>1</sup>McLean Hospital, Belmont, MA, <sup>2</sup>Harvard Medical School, Boston, MA, <sup>3</sup>University of Texas, San Antonio, TX
- 79 Patterns of nonmedical use of prescription opioids during the transition to adulthood: A multi-cohort national longitudinal study
  S. E. McCabe<sup>1,2</sup>, J. E. Schulenberg<sup>3</sup>, P. M. O'Malley<sup>3</sup>, M. E. Patrick<sup>3</sup>, D. D. Kloska<sup>3</sup>, <sup>1</sup>Substance Abuse Research Center, University of Michigan, Ann Arbor, MI, <sup>2</sup>Institute for Research on

Women and Gender, University of Michigan, Ann Arbor, MI, <sup>3</sup>Institute for Social Research, University of Michigan, Ann Arbor, MI

#### 80 WITHDRAWN

- 81 Predictors of nonfatal overdose in a longitudinal cohort of rural prescription drug users
  J. R. Havens<sup>1</sup>, R. A. Pollini<sup>2</sup>, C. B. Oser<sup>3</sup>, C. G. Leukefeld<sup>1</sup>, <sup>1</sup>Center on Drug and Alcohol
  Research, University of Kentucky, Lexington, KY, <sup>2</sup>Alcohol, Policy, and Safety Research
  Center, Pacific Institue for Research and Evaluation, Calverton, MD, <sup>3</sup>Sociology, University of
  Kentucky, Lexington, KY
- 82 Positive results from Project Lazarus community-based prescription opioid overdose prevention F. W. Brason<sup>1</sup>, C. P. Sanford<sup>1</sup>, S. Albert<sup>1</sup>, N. Dasgupta<sup>2</sup>, <sup>1</sup>Project Lazarus, Moravian Falls, NC, <sup>2</sup>Univ. of NC, Chapel Hill, NC
- 83 Rx opioid abuse: The role of pharmacists
  G. Cochran<sup>1</sup>, C. A. Field<sup>1</sup>, K. Lawson<sup>2</sup>, C. Erickson<sup>2</sup>, <sup>1</sup>Social Work, The University of Texas at Austin, Austin, TX, <sup>2</sup>Pharmacy, The University of Texas at Austin, Austin, TX
- 84 Street prices of prescription opioids diverted to the illicit market
  H. Surratt<sup>1</sup>, S. P. Kurtz<sup>1</sup>, T. Cicero<sup>2</sup>, R. Dart<sup>3</sup>, <sup>1</sup>Nova Southeastern University, Coral Gables, FL,
  <sup>2</sup>Washington University, St. Louis, MO, <sup>3</sup>Denver Health & Hospital Authority, Denver, CO
- Assessing abuse deterrence strategies for pharmaceuticals using crowdsourcing for black market street prices
   N. Dasgupta<sup>1,2</sup>, C. M. Menone<sup>1</sup>, R. Dart<sup>2</sup>, J. S. Brownstein<sup>1</sup>, <sup>1</sup>Epidemico, Boston, MA, <sup>2</sup>Rocky Mountain Poison and Drug Center, Denver Health and Hospital Authority, Denver, CO

#### PROGRAM DESCRIPTION

- 86 Workforce development in Vietnam: HVATTC

  T. Freese<sup>1</sup>, L. Giang<sup>3</sup>, R. Rawson<sup>1</sup>, K. Mulvey<sup>2</sup>, <sup>1</sup>Integrated Substance Abuse Programs/Semel Institute, UCLA, Los Angeles, CA, <sup>2</sup>Substance Abuse and Mental Health Services Administration, Washington DC, DC, <sup>3</sup>Hanoi Medical University, Hanoi, Viet Nam
- 87 Implementing addiction treatment trials in medical settings in the National Institute on Drug Abuse Clinical Trials Network
   A. A. Forcehimes<sup>1</sup>, M. P. Bogenschutz<sup>1</sup>, D. M. Donovan<sup>2</sup>, C. Crandall<sup>1</sup>, R. Lindblad<sup>3</sup>,
   R. Mandler<sup>4</sup>, H. I. Perl<sup>3</sup>, R. Walker<sup>5</sup>, <sup>1</sup>CASAA, University of New Mexico, Albuquerque, NM, <sup>2</sup>University of Washington, Seattle, WA, <sup>3</sup>EMMES, Rockville, MD, <sup>4</sup>NIDA, Bethesda, MD, <sup>5</sup>UT Southwestern, Dallas, TX
- 88 New York's Center For Excellence in Integrated Care: "Getting to capable" Status of the system
  - S. Sacks, M. Chaple, Center for the Integration of Research and Practice, NDRI, Inc, New York, NY

- 89 Psychiatric follow-up for dually diagnosed patients discharged from level-III detoxification in Central Massachusetts
  - A. Harrington, M. Kolodziej, M. Hobart, G. Gonzalez, Psychiatry, University of Massachusetts, Worcester, MA
- 90 Withdrawn
- 91 Assessing development of recovery-oriented system of care (ROSC) environment in Iowa A. H. Skinstad<sup>1,2</sup>, J. Zwick<sup>3</sup>, K. M. Summers<sup>1,2</sup>, <sup>1</sup>Dept of Community and Behavioral Health, University of Iowa, College of Public Health, Iowa City, IA, <sup>2</sup>Prairielands ATTC, Iowa City, IA, <sup>3</sup>Zwick Healthcare Consultants, LLC, Urbandale, IA
- 92 A clinical decision support model for screening and management of substance use disorders in electronic health records in general medical settings
   B. Tai¹, R. Lindblad², R. Gore-Langton², U. Ghitza¹, G. Subramaniam¹, ¹Center for Clinical Trials Network, National Institute on Drug Abuse, Bethesda, MD, ²Data and Statistics Center 2, The EMMES corporation, Rockville, MD
- 93 Care coordination of prescribed psychotropic medication in a methadone program
  R. M. Seewald, R. M. Tio, D. Scott, R. M. Lorenz, R. Elam, D. C. Perlman, Medicine, Beth Israel Medical Center MMTP, New York, NY
- 794 Technology transfer program: Development of automated prize-based contingency management software for distribution to community treatment clinics
   M. L. Jobes¹, D. H. Epstein¹, W. A. Elgie III², J. L. Lin¹, M. Mezghanni², K. L. Preston¹,
   M. Vahabzadeh¹, ¹NIDA IRP Treatment Section, Baltimore, MD, ²Johns Hopkins Bayview Medical Center, Baltimore, MD
- 95 Technology-based interventions for substance use disorder treatment
  R. Friedberg, J. May, A. Fitzgerald, D. Farrell-Moore, Richmond Behavioral Health Authority,
  Richmond, VA
- Drojnet 2: The interest of information and communication technologies (ICT) in prevenion and harm reduction linked to drug use
   C. Maitre¹, C. Olaizola¹, J. Colom², J. Del Pozo³, J. Daulouede¹, ¹Addiction Clinic Bizia, Bayonne, France, ²General Subdirection of Drug Prevention, Health Department of Cataluña, Barcelona, Spain, ³Drug Prevention Service, Public Health General Direction of La Rioja, Logroño, Spain
- 97 Real-time management and sharing of fMRI analyses using a custom web-based neuroinformatics system

  J. F. Magland, O. Bartra, S. Lam, A. R. Childress, Perelman School of Medicine, University of
- 98 ATTC Network's iTraining Series demonstrates value of webinar-based information dissemination

Pennsylvania, Philadelphia, PA

- E. Hobbs, L. Krom, H. J. Gotham, University of Missouri Kansas City, Kansas City, MO
- 99 Web-based training and dissemination of Therapeutic Goals Management (TGM)

  J. E. Schumacher<sup>1</sup>, J. B. Milby<sup>3</sup>, J. Klapow<sup>2</sup>, S. Sieweke<sup>3</sup>, T. Hammer<sup>2</sup>, <sup>1</sup>Dept of Medicine/Div of Preventive Medicine, University of Alabama at Birmingham, Birmingham, AL, <sup>2</sup>Behavioral Science, ChipRewards, Inc, Birmingham, AL, <sup>3</sup>Psychology, UAB, Birmingham, AL
- 100 In vitro tamper testing of reformulated OxyContin®: An iterative and incremental scientific approach
  - E. Cone<sup>1</sup>, J. Giordano<sup>2</sup>, B. Weingarten<sup>2</sup>, <sup>1</sup>Pinney Associates, Bethesda, MD, <sup>2</sup>Purdue Pharma, Stamford, CT

- 101 *Nicotine research cigarettes for the NIDA drug supply program*S. K. Sabharwal, R. C. Daw, P. G. Pande, K. H. Davis, Jr., B. F. Thomas, Analytical Chemistry and Pharmaceutics, RTI International, Research Triangle Park, NC
- 102 Implementing organizational change strategies to address tobacco addiction in outpatient treatment agencies
   M. E. Kolodziej, M. Tonelli, D. Kalman, G. Gonzalez, D. Ziedonis, Psychiatry, University of Massachusetts Medical School, Worcester, MA
- 103 Partnerships that improve outcomes for families affected by substance use disorders N. K. Young, S. Boles, Children and Family Futures, Irvine, CA
- 104 UNODC-WHO Programme on Drug Dependence Treatment and Care: Effective and humane treatment for all people with drug use disorders
   E. D. Saenz-Miranda<sup>1</sup>, A. Busse<sup>1</sup>, N. C. Clark<sup>2</sup>, G. Campello<sup>1</sup>, V. Poznyak<sup>2</sup>, G. Gerra<sup>1</sup>,
   <sup>1</sup>Prevention, Treatment and Rehabilitation Section, United Nations Office on Drugs and Crime, Vienna, Venezuela, <sup>2</sup>Management of Substance Abuse, World Health Organization, Geneva, Switzerland

#### THEORETICAL/COMMENTARY

- 105 Recruitment and retention strategies for drug addiction research based in medical EDs L. M. Worth<sup>1</sup>, A. A. Forcehimes<sup>1</sup>, M. P. Bogenschutz<sup>1</sup>, R. Chavez<sup>1</sup>, H. I. Perl<sup>2</sup>, R. Mandler<sup>2</sup>, <sup>1</sup>CASAA, University of New Mexico, Albuquerque, NM, <sup>2</sup>NIDA, Bethesda, MD
- 106 Providing brief addictions treatment in an emergency department: Experiences of University of New Mexico Hospital research interventionists in the SMART-ED trial
   C. FitzGerald, M. Martinez, D. Garcia, C. Crandall, A. A. Forcehimes, M. P. Bogenschutz, CASAA, University of New Mexico, Albuquerque, NM
- 107 Abuse liability: Enhance the quality of adverse events (AE) reports in a new drug application M. K. Romach<sup>1</sup>, R. S. Mansbach<sup>2</sup>, E. M. Sellers<sup>1</sup>, <sup>1</sup>DL Global Partners Inc, Toronto, ON, Canada, <sup>2</sup>Mansbach Consulting, San Diego, CA
- 108 Managing aberrant drug behavior in primary care
  C. E. Argoff<sup>1</sup>, L. Wilson<sup>2</sup>, M. Kahan<sup>2</sup>, E. M. Sellers<sup>3</sup>, <sup>1</sup>Albany Medical College, Albany, NY,
  <sup>2</sup>University of Toronto, Toronto, ON, Canada, <sup>3</sup>DL Global Partners, Inc, Toronto, ON, Canada
- Developing a competency mapping methodology using multidimensional scaling (MDS) for its application in substance abuse research
   G. Yu, <sup>1</sup>Biostatistics, Columbia University, New York, NY, <sup>2</sup>Predoctoral Fellow, Behavioral Sciences Training Program, National Research and Development Institute (NDRI), New York, NY
- Neuropsychological impairment in drug abusers: Implications for addictions treatment
   A. M. Horton, Neuropsychology Section, Psych Associates of Maryland, Bethesda, MD
- 111 Oxytocin: Shifting the balance between drug and social rewards?

  F. T. Buisman-Pijlman<sup>1</sup>, M. Tops<sup>2</sup>, <sup>1</sup>Pharmacology, The University of Adelaide, Adelaide, SA, Australia, <sup>2</sup>Centre for Child and Family Studies and Data Theory, Leiden University, Leiden, Netherlands
- Modeling longitudinal post-treatment client outcomes from open-enrollment therapy groups
   S. M. Paddock, T. D. Savitsky, RAND Corporation, Santa Monica, CA

- 113 Cross-cultural adaptations of CRA for substance use disorders

  D. Lupee<sup>4</sup>, K. Venner<sup>1</sup>, B. Greenfield<sup>1</sup>, E. Homer<sup>4</sup>, V. Mc Ginley<sup>2</sup>, F. Lesansee<sup>3,4</sup>, Y. Yamutewa<sup>4</sup>,
  R. Currier<sup>3,4</sup>, J. E. Smith<sup>2</sup>, P. May<sup>1</sup>, <sup>1</sup>Department of Psychology, University of New Mexico
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  Psychology, University of New Mexico, Albuquerque, NM, <sup>3</sup>Zuni Recovery Center, Zuni, NM,
  <sup>4</sup>Pueblo of Zuni MICRA Project, Zuni, NM
- Endocrine status: Novel implications for understanding sex-related differences in selfmedication and treatment response
   N. Goletiani, ADARC, McLean Hospital, Belmont, MA
- 115 Assessment of abuse-deterrent effects of new drugsL. Chen, M. Klein, S. N. Calderon, FDA, Silver Spring, MD
- 116 Family drug courts: Focusing on the children
  C. Killian, N. K. Young, S. Boles, Children and Family Futures, Irvine, CA

#### MARIJUANA/CANNABINOIDS

- 117 Effects of synthetic cannabinoids on the blood brain barrier
  M. Agudelo, A. Yndart, M. Morrison, J. Napuri, T. Samikkannu, V. P. Reddy, M. P. Nair, Immunology, Florida International University, Miami, FL
- 118 Sleep architecture in abstinent marijuana-dependent volunteers compared to controls C. L. Steinmiller<sup>1,3</sup>, S. Randall<sup>2</sup>, T. A. Roehrs<sup>1,2</sup>, L. H. Lundahl<sup>1</sup>, <sup>1</sup>Psychiatry & Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI, <sup>2</sup>Sleep and Research Center, Henry Ford Hospital, Detroit, MI, <sup>3</sup>Pharmacology, University of Toledo, Toledo, OH
- Placebo-responding is associated with failure to discriminate active THC from placebo THC cigarettes
   L. H. Lundahl¹, C. L. Steinmiller¹,², D. M. Ledgerwood¹, M. K. Greenwald¹, ¹Psychiatry, Wayne State University, Detroit, MI, ²Pharmacology, University of Toledo, Toledo, OH
- J. Copeland<sup>1</sup>, D. J. Allsop<sup>1</sup>, M. M. Norberg<sup>1</sup>, S. Fu<sup>2</sup>, A. Molnar<sup>2</sup>, J. Lewis<sup>2</sup>, A. J. Budney<sup>3</sup>, 
  <sup>1</sup>National Cannabis Prevention and Information Centre, University of New South Wales, 
  Sydney, NSW, Australia, <sup>2</sup>School of Chemistry and Forensic Science, University of 
  Technology, Sydney, NSW, Australia, <sup>3</sup>Center for Addiction Research, University of Arkansas 
  for Medical Sciences, Little Rock, AR
- Analysis of cannabis seizures in NSW, Australia: Cannabinoid profile and implications W. Swift<sup>1</sup>, I. S. McGregor<sup>2</sup>, J. C. Arnold<sup>3,4</sup>, K. M. Li<sup>3</sup>, A. Wong<sup>3</sup>, <sup>1</sup>National Drug and Alcohol Research Centre, University of NSW, Sydney, NSW, Australia, <sup>2</sup>School of Psychology, University of Sydney, Sydney, NSW, Australia, <sup>3</sup>Department of Pharmacology, University of Sydney, Sydney, NSW, Australia, <sup>4</sup>Brain and Mind Research Institute, University of Sydney, Sydney, NSW, Australia
- 122 Identifying adult ADHD in adult marijuana treatment seekers

  D. J. Brooks<sup>1</sup>, A. Mahony<sup>1</sup>, M. Pavlicova<sup>3</sup>, A. Glass<sup>3</sup>, F. R. Levin<sup>2,1</sup>, <sup>1</sup>Substance Abuse, NYSPI, New York, NY, <sup>2</sup>Psychiatry, Columbia University, New York, NY, <sup>3</sup>Biostatistics, Columbia University, New York, NY
- Marijuana's acute effects on attentional bias for affective cues
  J. Metrik<sup>1</sup>, C. Kahler<sup>1</sup>, D. Rohsenow<sup>1</sup>, J. McGeary<sup>2,1</sup>, V. Knopik<sup>2,1</sup>, <sup>1</sup>Brown University,
  Providence, RI, <sup>2</sup>Rhode Island Hospital, Providence, RI

- 124 Delay discounting in two clinical samples of marijuana users
  E. N. Peters¹, B. A. Reynolds², M. O. Bonn-Miller³, K. M. Carroll¹, ¹Yale University School of Medicine, New Haven, CT, ²The Ohio State University, Columbus, OH, ³National Center for PTSD & Center for Health Care Evaluation, VA Palo Alto Health Care System, Palo Alto, CA
- 125 Getting to it later: Cannabis use and procrastination

  Z. Walsh<sup>1</sup>, A. Roemer<sup>1</sup>, K. Crosby<sup>1</sup>, M. Hiles<sup>1</sup>, M. Swogger<sup>2</sup>, <sup>1</sup>Psychology, University of British Columbia, Kelowna, BC, Canada, <sup>2</sup>Psychiatry, University of Rochester Medical Center, Rochester, NY
- 126 Gateway behavior vs. "gateway" sequence in the risk for addiction
  M. Vanyukov<sup>1</sup>, L. Kirisci<sup>1</sup>, A. Mezzich<sup>1</sup>, T. Ridenour<sup>1</sup>, D. Fishbein<sup>2</sup>, M. Horner<sup>1</sup>, M. Reynolds<sup>1</sup>,
  G. Kirillova<sup>1</sup>, R. Tarter<sup>1</sup>, <sup>1</sup>University of Pittsburgh, Pittsburgh, PA, <sup>2</sup>Research Triangle Institute,
  Baltimore, MD
- Marijuana use and its relationship to problematic drinking in young adult marijuana study volunteers
   C. Martin<sup>1,2</sup>, D. C. Lee<sup>2</sup>, G. Robbins<sup>2</sup>, G. Guenthner<sup>1</sup>, T. Kelly<sup>2,1</sup>, <sup>1</sup>Psychiatry, University of Kentucky College of Medicine, Lexington, KY, <sup>2</sup>Behavioral Science, University of Kentucky College of Medicine, Lexington, KY
- 128 Prevalence of early trauma in cannabis-dependent patients
  M. Stiles<sup>2</sup>, S. M. Evans<sup>1,2</sup>, A. Glass<sup>1</sup>, D. J. Brooks<sup>2</sup>, A. Mahony<sup>2</sup>, J. J. Mariani<sup>1,2</sup>, F. R. Levin<sup>1,2</sup>,

  <sup>1</sup>Psychiatry/Division on Substance Abuse, Columbia University, New York, NY,

  <sup>2</sup>Psychiatry/Division on Substance Abuse, New York State Psychiatric Institute, New York, NY
- 129 Findings from a pilot study of medical marijuana users in Los Angeles County
  C. E. Grella, P. Sheaff, L. Rodriguez, UCLA Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA
- Client attitudes toward, and satisfaction with, general medical practitioners' approach to cannabis use interventions
   P. Gates, J. Copeland, M. Norberg, NCPIC, University of NSW, Sydney, NSW, Australia
- 131 Kynurenine 3-monooxygenase inhibition by Ro 61-8048 blocks THC self-administration and prevents relapse in squirrel monkeys
   Z. Justinova<sup>1,2</sup>, P. Mascia<sup>1</sup>, M. Scherma<sup>3</sup>, G. H. Redhi<sup>1</sup>, H. Q. Wu<sup>2</sup>, R. Schwarcz<sup>2</sup>,
   S. R. Goldberg<sup>1</sup>, <sup>1</sup>Preclinical Pharmacology Section, NIDA, IRP, NIH, DHHS, Baltimore, MD, <sup>2</sup>Psychiatry, University of Maryland School of Medicine, Baltimore, MD, <sup>3</sup>B.B. Brodie Department of Neuroscience, University of Cagliari, Monserrato, Italy

#### STIMULANTS: ANIMAL STUDIES

- Effects of lipopolysaccharides on the methamphetamine-induced rewarding effects: Involvement of the regulation of cytokines mRNA
   T. Suzuki, M. Shibasaki, Y. Akita, M. Mitake, T. Mori, Toxicology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan
- 133 Active immunopharmacotherapy for methamphetamine provides functional protection in rats M. L. Miller, A. Y. Moreno, B. D. Vaillancourt, M. J. Wright, S. M. Aarde, S. A. Vandewater, K. M. Creehan, K. D. Janda, M. A. Taffe, The Scripps Research Institute, La Jolla, CA
- Safety and efficacy of a novel anti-(+)-methamphetamine (METH) vaccine
   D. Rüedi-Bettschen¹, M. G. Gunnell¹, R. R. Pidaparthi², F. I. Carroll², B. E. Blough²,
   S. M. Owens¹, ¹University of Arkansas for Medical Sciences, Little Rock, AR, ²Research Triangle Institute, Research Triangle Park, NC

- 135 Evaluation of the bupropion-induced sensitization to the locomotor activity
  Y. Ogawa, T. Mori, M. Hokazono, N. Uzawa, M. Shibasaki, T. Suzuki, Toxicology, Hoshi
  University, Tokyo, Japan
- 136 Lower sensitivity to methamphetamine in accumbal dopamine D2 receptor knockdown mice by using AAV vector
  - A. Nitta<sup>1</sup>, S. Muramatsu<sup>2</sup>, Y. Miyamoto<sup>1</sup>, <sup>1</sup>Department of Pharmaceutical Therapy & Neuropharmacology, Faculty of Pharmaceutical Sciences, University of Toyama, Toyama-shi, Japan, <sup>2</sup>Division of Neurology, Department of Medicine, Jichi Medical University, Shimotsuke, Japan
- Escalating exposure to methamphetamine produces persistent alterations in dopaminergic biomarkers and inhibitory control in monkeys
   S. M. Groman<sup>1</sup>, B. Lee<sup>2</sup>, E. Seu<sup>1</sup>, A. S. James<sup>1</sup>, E. D. London<sup>2</sup>, M. A. Mandelkern<sup>3</sup>,
   J. D. Jentsch<sup>1</sup>, <sup>1</sup>Psychology, UCLA, Los Angeles, CA, <sup>2</sup>Psychiatry and Biobehavioral Sciences, UCLA, Los Angeles, CA, <sup>3</sup>Physics, UCI, Irvine, CA
- Role of neuronal nitric oxide synthase-containing striatal interneurons in methamphetamine-induced dopamine neurotoxicity
   A. Fricks-Gleason<sup>1</sup>, K. A. Keefe<sup>1,2</sup>, <sup>1</sup>Pharmacology & Toxicology, University of Utah, Salt Lake City, UT, <sup>2</sup>Program in Neuroscience, University of Utah, Salt Lake City, UT
- Methamphetamine-induced hyperthermia, methylphenidate neuroprotection and the vesicular monoamine transporter-2
   C. L. German, G. R. Hanson, A. E. Fleckenstein, Pharmacology & Toxicology, University of Utah, Salt Lake City, UT
- 140 A microdialysis and behavioral comparison of lisdexamfetamine and methylphenidate in freely moving rats
  H. L. Rowley<sup>1</sup>, D. J. Heal<sup>1</sup>, R. S. Kulkarni<sup>1</sup>, D. Hackett<sup>2</sup>, <sup>1</sup>RenaSci Ltd, Nottingham, United
  - Kingdom, <sup>2</sup>Shire Pharmaceuticals Limited, Basingstoke, United Kingdom
- 141 Lisdexamfetamine and d-amfetamine: Important differences for the relationships between extracellular striatal dopamine, locomotor activity and plasma drug concentrations in freely moving rats revealed by hysteresis analysis

  D. Hackett², H. L. Rowley¹, D. J. Heal¹, ¹RenaSci Ltd, Nottingham, United Kingdom, ²Shire Pharmaceuticals Ltd, Basingstoke, United Kingdom
- 142 Profiles of lisdexamfetamine and methylphenidate in rats trained to discriminate d-amfetamine from saline
  - D. J. Heal<sup>1</sup>, J. Gosden<sup>1</sup>, N. A. Slater<sup>1</sup>, D. Hackett<sup>2</sup>, <sup>1</sup>RenaSci Ltd, Nottingham, United Kingdom, <sup>2</sup>Shire Pharmaceuticals Ltd, Basingstoke, United Kingdom
- 143 Activity wheel training alters the self-administration of d-methamphetamine in male rats M. A. Taffe<sup>1</sup>, B. V. Vaillancourt<sup>2</sup>, P. K. Huang<sup>1</sup>, M. L. Miller<sup>1</sup>, S. M. Aarde<sup>1</sup>, M. J. Wright<sup>1</sup>, 

  <sup>1</sup>CNAD, The Scripps Research Institute, La Jolla, CA, <sup>2</sup>UCSD, La Jolla, CA
- 144 Effect of circadian rhythm disruption on methamphetamine preference in rats
  S. E. Doyle<sup>1</sup>, H. Feng<sup>2</sup>, G. Garber<sup>2</sup>, M. Menaker<sup>2</sup>, W. J. Lynch<sup>1</sup>, <sup>1</sup>Psychiatry & Neurobehavioral Sciences, University of Virginia, Charlottesville, VA, <sup>2</sup>Biology, University of Virginia, Charlottesville, VA
- The effect of housing condition on response to novelty and amphetamine self-administration in Lewis and Fischer rats: Gene-environment interaction
   A. C. Meyer<sup>1,2</sup>, M. T. Bardo<sup>1,2</sup>, <sup>1</sup>Psychology, University of Kentucky, Lexington, KY, <sup>2</sup>Center for Drug Abuse Research Translation, Lexington, KY

- 146 Sex differences in amphetamine-induced behavior are mediated by organizational effects of androgen during puberty
  - C. M. Kuhn, A. Van Swearingen, A. Oliveri, A. Jaeger, Pharmacology, Duke University Medical Center, Durham, NC
- 147 Oxytocin decreases methamphetamine self-administration in female rats
  B. M. Cox, C. Chan, S. M. Ghee, R. E. See, C. M. Reichel, Medical University of South Carolina, Charleston, SC
- 148 Juvenile exposure to methamphetamine attenuates behavioral and neurochemical responses to methamphetamine in adult rats
  - L. M. McFadden<sup>1</sup>, E. Anderson<sup>2</sup>, S. Carter<sup>2</sup>, L. Matuszewich<sup>2</sup>, <sup>1</sup>University of Utah, Salt Lake City, UT, <sup>2</sup>Northern Illinois University, DeKalb, IL
- 149 Sex differences in ambulatory activity after acute administration of cocaine, methamphetamine, and cannabinoids
  - C. Daly<sup>1,2</sup>, M. Albert<sup>1</sup>, R. Chavez<sup>1</sup>, R. Hazim<sup>1,2</sup>, S. Nygard<sup>1,2</sup>, A. Klamatsen<sup>1</sup>, V. Quinones-Jenab<sup>1,2</sup>, S. Jenab<sup>1,2</sup>, <sup>1</sup>Psychology, Hunter College, New York, NY, <sup>2</sup>Psychology, CUNY Graduate Center, New York, NY
- 150 Pharmacology of psychoactive designer "bath salts"
  A. J. Eshleman<sup>1,2</sup>, K. M. Wolfrum<sup>1</sup>, M. G. Hatfield<sup>1</sup>, R. A. Johnson<sup>1</sup>, A. Janowsky<sup>1,2</sup>, <sup>1</sup>Research Service, Vet Affairs Medical Center, Portland, OR, <sup>2</sup>Behavioral Neurosci and Psychiatry, Oregon Health and Science University, Portland, OR
- 151 "Bath salts": Discriminative stimulus effects of several cathinone compounds M. J. Forster, C. Taylor, M. B. Gatch, Pharmacology & Neuroscience, UNT Health Science Center, Fort Worth, TX
- 152 Development of tetrahydroisoquinoline-based orexin-1 receptor antagonists
  Y. Zhang, D. Perrey, N. German, B. P. Gilmour, T. Langston, K. Warner, E. Gay, B. F. Thomas,
  Research Triangle Institute, Research Triangle Park, NC

### Symposium XI

Flores 4 2:00 - 3:00 PM

#### DRUG EFFECTS IN THE DEVELOPING ADOLESCENT BRAIN

Chairs: Bertha K. Madras and Yasmin L. Hurd

- 2:00 MDMA and methamphetamine elicit contrasting behavioral and molecular responses in the adolescent and adult mouse
  - Bertha K. Madras, Harvard Medical School, Southborough, MA
- 2:20 Cannabis and the developing brain
  Yasmin Hurd, Mount Sinai School of Medicine, New York, NY
- 2:40 Exposure of adolescent rats to cocaine and risk-taking behavior in adulthood Christine Konradi, Vanderbilt University, Nashville, TN

#### **Oral Communications 14**

Flores 4 3:15 - 4:15 PM

#### BACK TO BASICS: OPIATE PHARMACOLOGY

Chairs: Jean M. Bidlack and Rebecca Balter

- 3:15 Kappa opioid agonists, not antagonists, stimulate phosphorylation of c-Jun N-terminal kinase J. M. Bidlack, B. I. Knapp, Dept. of Pharmacology and Physiology, University of Rochester, Rochester, NY
- 3:30 Effects of mu and kappa opioid receptor ligands on the expression and extinction of conditioned fear in C57BL/6J mice

  S. A. Vunck<sup>1</sup>, S. E. Snider<sup>2</sup>, P. M. Beardsley<sup>2</sup>, <sup>1</sup>Psychology, Virginia Commonwealth University, Richmond, VA, <sup>2</sup>Pharmacology & Toxicology, Virginia Commonwealth University, Richmond, VA
- 3:45 Involvement of dynorphin and kappa opioid receptor (KOP-r) in stress-precipitated heroin seeking in rats

  Y. Zhou¹, F. Leri², S. Grella², B. Reed¹, M. J. Kreek¹, ¹Biology of Addictive Diseases,
  Rockefeller University, New York, NY, ²Psychology, Guelph University, Guelph, ON, Canada
- 4:00 Wheel running, group housing and spontaneous morphine withdrawal in mice
  R. Balter<sup>1</sup>, L. A. Dykstra<sup>1,2</sup>, <sup>1</sup>Neurobiology, University of NC- Chapel Hill, NC,
  <sup>2</sup>Psychology, University of NC- Chapel Hill, NC

### **Symposium XII**

Flores 5 2:00 - 3:00 PM

# IS ABSTINENCE THE ONLY MEANINGFUL ENDPOINT? RESULTS FROM SECONDARY ANALYSES OF COCAINE TREATMENT STUDIES

Chairs: Geetha Subramaniam and George E. Woody

- 2:00 Reductions in cocaine use and functional outcomes in the NIDA cocaine collaborative study Paul Crits-Christoph, University of Pennsylvania, Philadelphia, PA
- 2:20 Using meditational analyses to define clinically meaningful outcomes in cocaine treatment: Results from 7 parallel randomized clinical trials

  Kathleen Carroll, Yale University School of Medicine, West Haven, CT
- 2:40 *Linking change in cocaine use patterns to longer-term outcomes* Richard Lennox, Chestnut Health Systems, Hillsborough, NC

### **Oral Communications 15**

Flores 5 3:15 - 4:15 PM

#### NICOTINE RECEPTORS IN ADDICTION AND TREATMENT

Chairs: Elise Weerts and Xiaohu Xie

3:15 Varenicline effects on alcohol seeking and self-administration in baboons

E. Weerts, B. Kaminski, Psychiatry and Behavioral Sciences, Johns Hopkins University,
Baltimore, MD

- 3:30 Nicotinic acetylcholine receptor stimulation is critical for the ability of cocaine-paired contextual stimuli to control impulsive decision making in rats

  X. Xie, A. A. Arguello, A. M. Reittinger, A. M. Wells, R. A. Fuchs, Psychology, University of North Carolina at Chapel Hill, Chapel Hill, NC
- 3:45 Discriminative stimulus effects of varenicline, a nicotinic acetylcholine receptor (nAChR) agonist, in mice

  J. S. Rodriguez, C. S. Cunningham, L. R. McMahon, Pharmacology, University of Texas
  - J. S. Rodriguez, C. S. Cunningham, L. R. McMahon, Pharmacology, University of Texas Health Science Center at San Antonio, San Antonio, TX
- 4:00 Nicotine-dependent rats exhibit increases in alcohol self-administration and altered sensitivity to varenicline
  - N. W. Gilpin<sup>1</sup>, O. George<sup>2</sup>, G. F. Koob<sup>2</sup>, <sup>1</sup>Physiology, LSU Health Sciences Center, New Orleans, LA, <sup>2</sup>CNAD, The Scripps Research Institute, La Jolla, CA

### **Oral Communications 16**

Flores 1-3 2:00 - 4:00 PM

#### SEX DIFFERENCES IN NEUROBIOLOGY AND TREATMENT

Chairs: Carmela M. Reichel and Ziva D. Cooper

- 2:00 Progesterone decreases cocaine choice in intact female rats
  K. A. Kerstetter, A. E. Carr, V. L. Togual, J. I. Lee, T. E. Kippin, Psychological and Brain Sciences, University of California, Santa Barbara, CA
- 2:15 Neurobiological mechanisms of cocaine addiction in females
  C. P. Ramôa, W. J. Lynch, University of Virginia, Charlottesville, VA
- 2:30 Sex differences in CART peptide's effects on dopamine-induced locomotor activity in rats: A hypothesis as to why females are more sensitive to cocaine than males

  J. Perry, M. Job, I. McNamara, M. J. Kuhar, Div of Behavioral Neuroscience and Psychiatric Disorders, Emory University, Atlanta, GA
- Oxytocin attenuates methamphetamine-induced locomotor activity in male and female rats:
   Implications for meth seeking
   C. M. Reichel, B. M. Cox, C. Chan, S. M. Ghee, R. E. See, Carmela Reichel, MUSC,
   Charleston, SC
- 3:00 Sex differences, decision-making and the neural correlates of cognitive control in cocaine dependence
   E. E. DeVito, H. Kober, K. M. Carroll, M. N. Potenza, Psychiatry, Yale University School of Medicine, New Haven, CT
- 3:15 Evaluating the effects of guanfacine on stress-precipitated smoking lapse by gender
  T. Udo, S. A. McKee, Department of Psychiatry, Yale University School of Medicine, New
  Haven, CT
- 3:30 Sex-dependent effects of marijuana and naltrexone in daily marijuana smokers

  Z. D. Cooper, M. Haney, Psychiatry, Columbia University and NYSPI, New York, NY
- 3:45 Gender differences in BOLD fMRI response to cue-elicited craving and resisting during NRT followed by ad-lib denicotinized cigarette use

  K. Hartwell<sup>1,2</sup>, A. L. McRae-Clark<sup>1</sup>, T. LeMatty<sup>1</sup>, M. Moran-Santa<sup>1</sup>, M. Owens<sup>1</sup>,

  M. S. George<sup>1,2</sup>, K. T. Brady<sup>1,2</sup>, <sup>1</sup>MUSC, Charleston, SC, <sup>2</sup>Ralph H. Johnson VAMC, Charleston, SC

#### **Oral Communications 17**

Flores 6-8 2:00 - 4:00 PM

#### ABUSE POTENTIAL: OLD DRUGS, NEW TRICKS

Chairs: Ryan K. Lanier and Shanna Babalonis

- 2:00 Evaluation of abuse potential of crushed and intranasally administered oxycodone tablets P. J. Perrino<sup>1</sup>, S. Colucci<sup>1</sup>, S. Harris<sup>1</sup>, E. Sellers<sup>2</sup>, <sup>1</sup>Clinical Pharmacology, Purdue Pharma LP, Stamford, CT, <sup>2</sup>DL Global Partners, Toronto, ON, Canada
- 2:15 Relative reinforcing efficacy and abuse liability of oral tramadol in humans
  S. Babalonis<sup>1,2</sup>, M. R. Lofwall<sup>3,2</sup>, A. J. Siegel<sup>3</sup>, P. A. Nuzzo<sup>2</sup>, S. L. Walsh<sup>1,2,3</sup>, <sup>1</sup>Behavioral Science, University of Kentucky (UK), Lexington, KY, <sup>2</sup>Center for Drug and Alcohol Research, UK, Lexington, KY, <sup>3</sup>Psychiatry, UK, Lexington, KY
- 2:30 Personality and the acute subjective effects of d-amphetamine in humans
  M. Kirkpatrick<sup>1</sup>, C. E. Johanson<sup>2</sup>, H. de Wit<sup>1</sup>, <sup>1</sup>Psychiatry and Behavioral Neurosciences,
  University of Chicago, Chicago, IL, <sup>2</sup>Psychiatry and Behavioral Neurosciences, Wayne State
  University, Detroit, MI
- 2:45 Stimulant and non-stimulant effects of mephedrone, MDPV, methylone, and other "bath salt" components on overt behavior in rodents

  J. A. Marusich, B. E. Blough, J. L. Wiley, RTI International, Research Triangle Park, NC
- 3:00 Novel C1-cocaine analogs unlike cocaine or benztropine

  M. E. Reith<sup>1,2</sup>, H. Sershen<sup>3</sup>, K. C. Schmitt<sup>1</sup>, I. S. Sheikh<sup>4</sup>, E. M. Unterwald<sup>4</sup>, F. A. Davis<sup>5</sup>,

  <sup>1</sup>Psychiatry, New York University School Med, New York, NY, <sup>2</sup>Pharmacology, NYU Sch Med,

  New York, NY, <sup>3</sup>NS Kline Inst Psychiatr Res, Orangeburg, NY, <sup>4</sup>Pharmacol & Ctr Subst Abuse

  Res, Temple Univ Sch Med, Philadelphia, PA, <sup>5</sup>Chemistry, Temple Univ, Philadelphia, PA
- 3:15 9-THC-like discriminative stimulus effects of compounds commonly found in K2/Spice M. B. Gatch, C. Taylor, M. Forster, Pharmacology & Neuroscience, UNT Health Science Center, Fort Worth, TX
- 3:30 Characterization of anatabine: An understudied alkaloid with potential benefits R. K. Lanier¹, S. B. Caine², G. T. Collins², M. Thomsen², C. Wright¹, N. K. Mello², ¹Rock Creek Pharmaceuticals, Gloucester, MA, ²McLean Hospital, Harvard Medical School, Belmont, MA
- 3:45 Effects of methcathinone and 3-Cl-methcathinone (PAL-434) in assays of cocaine discrimination and self-administration in rhesus monkeys

  S. Kohut<sup>1</sup>, P. Fivel<sup>1</sup>, B. Blough<sup>2</sup>, N. Mello<sup>1</sup>, <sup>1</sup>McLean Hospital, Harvard Medical School, Belmont, MA, <sup>2</sup>RTI International, Research Triangle Park, NC

**Business Meeting** (MEMBERS ONLY)

Capra 4:30 - 5:30 PM

**DINNER AND DANCING** 

Flores Ballroom 7:30 - 10:30 PM

### **Poster Session IV (Breakfast)**

Fiesta 8:00 - 10:00 AM

Odd-numbered posters manned first hour; Even-numbered, second hour

Set-up time begins Wednesday 3:00 PM Must be removed by Thursday 11:00 AM

#### OPIOIDS: HUMAN STUDIES II

- 1 Comparison of contingency management reinforcement schedules provided with buprenorphine for the treatment of opioid dependence
  - M. P. Hillhouse, C. Thomas, J. Jenkins, J. Fahey, B. Thornton, E. Schaper, W. Ling, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA
- Community treatment perceptions of contingency management: A mixed-method approach to examining feasibility, effectiveness, and transportability of incentives
   B. Hartzler, C. Rabun, Alcohol & Drug Abuse Institute, University of Washington, Seattle, WA
- 3 Dose adjustment during induction phase and first-month retention among patients receiving methadone maintenance treatment in Kunming, Yunnan C. Peng, Y. Chang, Y. Hser, UCLA, Los Angeles, CA
- 4 Evaluation of the quality of life (WHOQOL-BREF) among methadone and Suboxone substitution State program patients and healthy volunteers in the Republic of Georgia I. Gamkrelidze<sup>1</sup>, G. Piralishvili<sup>1</sup>, G. E. Woody<sup>2</sup>, N. Nikolaishvili<sup>1</sup>, M. Chavchanidze<sup>1</sup>, <sup>1</sup>Georgian Research Institute on Addiction, Tbilisi, Georgia, <sup>2</sup>Treatment Research Institute, University of Pennsylvania, Philadelphia, PA
- 5 Treatment compliance and challenges at State substitution programs in the Republic of Georgia G. Piralishvili<sup>1</sup>, G. E. Woody<sup>2</sup>, I. Gamkrelidze<sup>1</sup>, N. Nikolaishvili<sup>1</sup>, M. Chavchanidze<sup>1</sup>, <sup>1</sup>Research Institute on Addiction, Tbilisi, Georgia, <sup>2</sup>Treatment Research Institute, University of Pennsylvania, Philadelphia, PA
- 6 Longitudinal opioid use in patients treated with buprenorphine: A 'missing not at random' (MNAR) and 'missing at random' (MAR) growth model comparison
  S. McPherson¹, C. Barbosa-Leiker¹, D. Howell¹, M. McDonell², J. Roll¹², ¹Program of Excellence in the Addictions, Washington State University, Spokane, WA, ²Department of Psychiatry and Behavioral Sciences, University of Washington, Seattle, WA
- 7 IOP vs. OP with buprenorphine: 6-month treatment outcomes
  S. G. Mitchell¹, J. Gryczynski¹, R. P. Schwartz¹, K. E. O'Grady², Y. K. Olsen³, J. H. Jaffe¹,⁴
  ¹Friends Research Institute, Baltimore, MD, ²U of Maryland, College Park, MD, ³IBR
  REACH, Baltimore, MD, ⁴U of Maryland, School of Medicine, Baltimore, MD
- 8 Probabilities and predictors of long-term continuing abstinence for heroin and methamphetamine users
   K. Lovinger, M. Brecht, C. Grella, Integrated Substance Abuse Programs, UCLA, Los Angeles, CA
- 9 *A randomized pilot of community reinforcement and family training for treatment retention* G. S. Brigham<sup>1,3</sup>, N. Slesnick<sup>2</sup>, E. Somoza<sup>3</sup>, P. Horn<sup>3</sup>, <sup>1</sup>Maryhaven, Columbus, OH, <sup>2</sup>The Ohio State University, Columbus, OH, <sup>3</sup>University of Cincinnati, Cincinnati, OH

- 10 Patient preferences for shorter treatment duration do not predict early dropout from buprenorphine treatment
  - J. Gryczynski<sup>1</sup>, S. G. Mitchell<sup>1</sup>, R. P. Schwartz<sup>1</sup>, K. E. O'Grady<sup>2</sup>, Y. K. Olsen<sup>3</sup>, J. H. Jaffe<sup>1</sup>, <sup>1</sup>Friends Research Institute, Baltimore, MD, <sup>2</sup>University of Maryland, College Park, MD, <sup>3</sup>Institutes for Behavior Research, Baltimore, MD
- Buprenorphine and costs of care for patients in two integrated health plans
  D. McCarty¹, F. L. Lynch², J. Mertens³, N. Perrin², C. A. Green², S. Parasarathy³, B. Anderson²,
  M. Koch³, ¹CB 669 PHPM, Oregon Health & Science Univ, Portland, OR, ²Center for Health Research, Kaiser Permanente Northwest, Portland, OR, ³Division of Research, Kaiser Permanente Northern California, Oakland, CA
- 12 Evaluation of the effectiveness of overdose response training in New York City
  J. D. Jones<sup>1</sup>, P. Roux<sup>1,2</sup>, S. Stancliff<sup>3</sup>, W. Matthews<sup>3</sup>, S. D. Comer<sup>1</sup>, <sup>1</sup>Division on Substance
  Abuse, Columbia University, College of Physicians and Surgeons, New York, NY, <sup>2</sup>Institut
  National de la Santé et de la Recherche Médicale, Marseille, France, <sup>3</sup>Harm Reduction
  Coalition, New York, NY
- 13 No evidence of increased heroin use or decreased detoxification treatment after overdose education and naloxone distribution
  - A. Y. Walley<sup>1,4</sup>, M. Doe-Simkins<sup>1</sup>, E. Quinn<sup>3</sup>, Z. Xuan<sup>3</sup>, A. Alawad<sup>1</sup>, H. Hackman<sup>4</sup>, A. Ozonoff<sup>2</sup>, <sup>1</sup>Boston Univ. School of Medicine, Boston, MA, <sup>2</sup>Children's Hospital, Boston, MA, <sup>3</sup>Boston Univ. School of Public Health, Boston, MA, <sup>4</sup>Massachusetts Department of Public Health, Boston, MA
- The association of perceived severity of and perceived susceptibility to non-fatal overdose with lifetime overdose among needle exchange attendees
   E. Bonar<sup>1,2</sup>, A. Bohnert<sup>1</sup>, <sup>1</sup>Psychiatry, Substance Abuse Section, University of Michigan, Ann Arbor, MI, <sup>2</sup>Psychology, Bowling Green State University, Bowling Green, OH
- 15 Risk factors for traumatic event reexposure in community syringe exchange participants
  J. M. Peirce, R. L. Schacht, R. K. Brooner, V. L. King, M. S. Kidorf, Johns Hopkins University
  School of Medicine, Baltimore, MD

#### PSYCHIATRIC COMORBIDITY II

- 16 Contingency management improves adherence to psychiatric care in opioid-dependent outpatients
  - M. S. Kidorf, J. Gandotra, D. Antoine, J. Peirce, V. King, R. Brooner, Psychiatry, Johns Hopkins, Baltimore, MD
- 17 Withdrawn
- 18 Withdrawn
- 19 Risk factors of comorbid substance use and gambling among a college sample H. Granato, M. Larimer, University of Washington, Seattle, WA
- 20 Investigating gambling and substance use behaviors: Does one's religious faith play a differential role?
  - L. A. Ghandour<sup>1</sup>, G. P. Lee<sup>2</sup>, A. H. Takache<sup>1</sup>, S. S. Martins<sup>2</sup>, <sup>1</sup>Epidemiology & Population Health, American University of Beirut, Beirut, Lebanon, <sup>2</sup>Mental Health, Johns Hopkins University, Baltimore, MD

- 21 Prevalence of chronic conditions and impact on functioning among persons in addiction recovery: Opportunities under health care reform

  A. B. Laudet, C-STAR, NDRI, NYC, NY
- 22 Trauma spectrum disorder: Implications for substance abuse research on traumatized populations
  R. K. Price, S. Balan, G. Widener, W. R. True, Washington University School of Medicine, St. Louis, MO
- 23 Lifetime psychopathology among impaired pharmacists in an impaired health professionals program: Comparison to the general population
  S. Ajinkya, M. Gold, L. Cottler, University of Florida, Gainesville, FL
- Demographic and risk factor characteristics of homeless veterans with co-occurring mental health and substance use in MISSION
   S. Rodrigues<sup>1,2,3</sup>, A. Kline<sup>4,5</sup>, K. O'Connor<sup>1,2,3</sup>, L. Sawh<sup>1,2,3</sup>, V. Kane<sup>2</sup>, J. Kuhn<sup>2</sup>, D. Ziedonis<sup>3</sup>, D. Smelson<sup>1,2,3</sup>, G. Gonzalez<sup>3</sup>, ¹Edith Nourse Rogers Memorial Veterans Hospital, Bedford, MA, ²VA National Center on Homelessness Among Veterans, Philadelphia, PA, ³Psychiatry, University of Massachusetts Medical School, Worcester, MA, ⁴VA New Jersey Health Care System, Lyons, NJ, ⁵Psychiatry, University of Medicine and Dentistry-Robert Wood Johnson Medical School, New Brunswick, NJ
- A low-intensity treatment engagement intervention for homeless veterans with co-occurring mental health and substance abuse problems: MISSION
   D. Smelson<sup>1,2,3</sup>, A. Kline<sup>4,5</sup>, S. Rodrigues<sup>1,2,3</sup>, K. O'Connor<sup>1,2,3</sup>, L. St. Hill<sup>4</sup>, L. Sawh<sup>1,2,3</sup>, D. Ziedonis<sup>3</sup>, G. Gonzalez<sup>3</sup>, ¹Edith Nourse Rogers Memorial Veterans Hospital, Bedford, MA, ²VA National Center on Homelessness Among Veterans, Philadelphia, PA, ³Psychiatry, University of Massachusetts Medical School, Worcester, MA, ⁴VA New Jersey Health Care System, Lyons, NJ, ⁵Psychiatry, University of Medicine and Dentistry-Robert Wood Johnson Medical School, New Brunswick, NJ
- 26 Longitudinal analysis of the unemployment rates of veterans entering MISSION
  K. O'Connor<sup>1,2,3</sup>, A. Kline<sup>4,5</sup>, L. Sawh<sup>1,2,3</sup>, S. Rodrigues<sup>1,2,3</sup>, V. Kane<sup>2</sup>, J. Kuhn<sup>2</sup>, D. Ziedonis<sup>3</sup>,
  M. Ellison<sup>1,2,3</sup>, D. Smelson<sup>1,2</sup>, G. Gonzalez<sup>3</sup>, <sup>1</sup>Edith Nourse Rogers Memorial Veterans Hospital,
  Bedford, MA, <sup>2</sup>VA National Center on Homelessness Among Veterans, Philadelphia, PA,
  <sup>3</sup>Psychiatry, University of Massachusetts Medical School, Worcester, MA, <sup>4</sup>VA New Jersey
  Health Care System, Lyons, NJ, <sup>5</sup>Psychiatry, University of Medicine and Dentistry-Robert
  Wood Johnson Medical School, New Brunswick, NJ
- 27 Mental health services utilization trajectory over time and long-term psychiatric outcomes among drug-dependent women
  - Y. Chang, D. Huang, Y. Hser, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- 28 Computer use and attitudes among patients with co-occurring disorders: Implications for computer-based interventions
  - A. C. Black, K. L. Serowik, M. I. Rosen, Psychiatry, Yale University, West Haven, CT
- 29 A comparison of physical and mental health functioning deficits in alcohol-dependent adults in eight countries
  - M. K. White, K. Smith, Health Economics and Outcomes Research, QualityMetric, OptumInsight, Lincoln, RI
- Substance use among young adults with mood disorders in drug treatment differs based upon history of being prescribed mood disorder medication
   J. Matejkowski<sup>1</sup>, K. Dugosh<sup>1</sup>, A. Flynn<sup>2</sup>, D. Festinger<sup>1</sup>, A. Arria<sup>1</sup>, <sup>1</sup>Treatment Research Institute, Philadelphia, PA, <sup>2</sup>Drug Strategies, Washington, DC, DC

- 31 Efficacy of "dual focus" mutual aid for co-occurring disorders: Preliminary substance use outcomes
  - A. Rosenblum<sup>1</sup>, H. Matusow<sup>1</sup>, C. Fong<sup>1</sup>, H. Vogel<sup>2</sup>, T. Uttaro<sup>3</sup>, S. Khabir<sup>4</sup>, A. DeSantis<sup>5</sup>, T. Moore<sup>6</sup>, S. Magura<sup>7</sup>, <sup>1</sup>Institute for Treatment and Services Research, National Development and Research Institutes, New York, NY, <sup>2</sup>Double Trouble in Recovery, Inc., Brooklyn, NY, <sup>3</sup>South Beach Psychiatric Center, Staten Island, NY, <sup>4</sup>Bowery Residents Committee, New York, NY, <sup>5</sup>Coney Island Hospital, Brooklyn, NY, <sup>6</sup>Cherry St. Health Services, Grand Rapids, MI, <sup>7</sup>Evaluation Center, Western Michigan Univ., Kalamazoo, MI
- 32 Impact of participation in dual-focus 12-step groups for people with co-occurring disorders H. Guarino<sup>1</sup>, H. Matusow<sup>1</sup>, A. Rosenblum<sup>1</sup>, J. T. Burhardt<sup>2</sup>, M. Rini<sup>3</sup>, S. Magura<sup>2</sup>, <sup>1</sup>ITSR, National Development and Research Institutes, New York, NY, <sup>2</sup>The Evaluation Center, Western Michigan University, Kalamazoo, MI, <sup>3</sup>Cherry St. Health Services, Grand Rapids, MI
- Pre-existing psychiatric severity did not affect likelihood of success in the Prescription Opiate Addiction Treatment Study (POATS)
   S. Sparenborg¹, L. Hu², J. Sharpe-Potter³, R. Weiss⁴, ¹Center for the Clinical Trials Network, National Institute on Drug Abuse, Bethesda, MD, ²The EMMES Corp., Rockville, MD, ³U T Health Sciences Center, San Antonio, TX, ⁴McLean Hospital, Belmont, MA

#### TREATMENT II

- 34 Continuity of care after detoxification: Use of the Washington Circle performance measure to evaluate public sector treatment services in California
  - S. E. Spear, Community Health Sciences, UCLA, Los Angeles, CA
- 35 Measuring integration of behavioral health services in primary care settings
  D. Urada<sup>1</sup>, M. McGovern<sup>2</sup>, C. Lambert-Harris<sup>2</sup>, S. Sullivan<sup>3</sup>, C. Brackett<sup>2</sup>, P. Friedmann<sup>4</sup>,
  N. Mazade<sup>5</sup>, S. McGeorge<sup>6</sup>, R. Tolliver<sup>7</sup>, E. Schaper<sup>1</sup>, D. Crevecoeur<sup>1</sup>, B. Oeser<sup>1</sup>, R. Rawson<sup>1</sup>,
  V. Pearce<sup>1</sup>, <sup>1</sup>Integrated Substance Abuse Programs, UCLA, Los Angeles, CA, <sup>2</sup>Dartmouth
  Medical School, Dartmouth College, Lebanon, NH, <sup>3</sup>Cloudburst Consulting Group,
  Landover, MD, <sup>4</sup>Alpert School of Medicine, Brown University, Providence, RI, <sup>5</sup>NASMHPD,
  Alexandria, VA, <sup>6</sup>S.C. Dept of Mental Health, Columbia, SC, <sup>7</sup>Heartland Health, Chicago, IL
- 36 Preferences for reinforcement type and ancillary services: A comparison of emerging adults and older chemical dependency treatment clients
   S. B. Garrett, D. A. Calsyn, J. S. Baer, B. Hartzler, B. C. Leigh, University of Washington, Seattle, WA
- 37 Motivation and engagement among adults and adolescents: A comparison of clients in shortterm residential programs

  D. Knight, G. Rowan-Szal, J. Greener, J. E. Becan, P. M. Flynn, Institute of Behavioral
  - D. Knight, G. Rowan-Szal, J. Greener, J. E. Becan, P. M. Flynn, Institute of Behavioral Research, Texas Christian University, Fort Worth, TX
- 38 Barriers for treatment leading to relapse after discharge: A qualitative study with male and female inpatient crack users
  - R. S. Pedroso, F. Kessler, F. Pechansky, Center for Drug and Alcohol Research, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
- 39 Polydrug use among methadone maintenance treatment patients in Shanghai, China: Effects of a motivational incentives intervention
  - F. Wu<sup>1</sup>, Y. Hser<sup>2</sup>, <sup>1</sup>Social Welfare, University of California, Los Angeles, Los Angeles, CA, <sup>2</sup>Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA

- 40 Baseline characteristics by primary substance of abuse of outpatient clients in a web-based intervention trial
  - A. Campbell<sup>1,2</sup>, E. V. Nunes<sup>1,2</sup>, M. Hu<sup>2</sup>, G. M. Miele<sup>2</sup>, M. Pavlicova<sup>2</sup>, <sup>1</sup>New York State Psychiatric Institute, New York, NY, <sup>2</sup>Columbia University, New York, NY
- 41 The importance to monitor all substance and non-substance addictive behaviors in Therapeutic Community settings
  - C. Denis<sup>1,3</sup>, E. Langlois<sup>2</sup>, M. Fatseas<sup>1</sup>, M. Auriacombe<sup>1</sup>, <sup>1</sup>Addiction Psychiatry (CNRS USR 3413), Universite Bordeaux Segalen, Bordeaux, France, <sup>2</sup>Centre Emile Durkeim UMR 5116, Universite Bordeaux Segalen, Bordeaux, France, <sup>3</sup>TRC, University of Pennsylvania, Philadelphia, PA, PA
- 42 Drug use following brief motivational intervention for at-risk drinkers in the Trauma Department
  - C. Field, J. Jun, School of Social Work, University of Texas at Austin, Austin, TX
- 43 Enhanced substance use disorder recovery through the use of peer recovery support

  J. May<sup>1</sup>, S. Auerbach<sup>2</sup>, M. Blackwell<sup>3</sup>, D. Farrell-Moore<sup>1</sup>, A. Fitzgerald<sup>1</sup>, R. Friedberg<sup>1</sup>,

  <sup>1</sup>Richmond Behavioral Health Authority, Richmond, VA, <sup>2</sup>Virginia Commonwealth University,

  Richmond, VA, <sup>3</sup>SAARA of Virginia, Richmond, VA
- 44 Development of informational materials about medication-assisted treatment
  M. S. Shafer¹, E. Hobbs², S. Malvini-Redden¹, S. Tracy¹, A. Roberto¹, R. Rivera¹, L. Krom²,
  ¹Center for Applied Behavioral Health Policy, Arizona State University, Phoenix, AZ,
  ²Addiction Technology Transfer Center, National Office, University of Missouri, Kansas
  City, MO

#### **POLICY**

- 45 Withdrawn
- 46 Policy and program barriers for drug-using women to access treatment services in the Republic of Georgia
  - D. Otiashvili<sup>1</sup>, I. Kirtadze<sup>1</sup>, K. O'Grady<sup>2</sup>, W. Zule<sup>3</sup>, E. Krupitsky<sup>4</sup>, W. Wechsberg<sup>3</sup>, H. Jones<sup>3</sup>, <sup>1</sup>Addiction Research Center, Alternative Georgia, Tbilisi, Georgia, <sup>2</sup>Department of Psychology, University of Maryland, College Park, MD, <sup>3</sup>RTI International, Research Triangle Park, NC, <sup>4</sup>Department of Addictions, Bekhterev Research Psychoneurological Institute, St. Petersburg, Russian Federation
- 47 Prevalence of training in substance abuse treatment in APA-accredited clinical and counseling psychology doctoral programs
  - S. Sirikantraporn<sup>1</sup>, J. Corbin<sup>2</sup>, W. Gottdeiner<sup>3</sup>, L. Armstrong<sup>3</sup>, S. Probber<sup>3</sup>, <sup>1</sup>National Development and Research Institutes, Inc., Brooklyn, NY, <sup>2</sup>Fordham University, Bronx, NY, <sup>3</sup>John Jay College of Criminal Justice, Manhattan, NY
- 48 Differences in rates of research participation among a community-based sample of drug and non-drug users
  - C. W. Striley, S. E. Bradford, L. B. Cottler, Epidemiology, University of Florida, Gainesville, FL
- 49 Substance abuse treatment completion among homeless adults in Maryland: Who benefits from Medicaid?
  - J. B. Zur, P. Alexandre, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 50 Assessing DUI offenders' needs and risks to improve treatment and supervision
  D. Festinger, K. L. Dugosh, D. B. Marlowe, Law & Ethics, Treatment Research Institute,
  Philadelphia, PA

- 51 Associations between selected state laws and teenagers' drinking and driving behaviors
  P. Cavazos-Rehg¹, M. Krauss¹, E. Spitznagel², F. Chaloupka³, M. Schootman¹, R. Grucza¹,
  L. Bierut¹, ¹Washington University School of Medicine, St. Louis, MO, ²Washington
  University, St. Louis, MO, ³University of Illinois, Chicago, IL
- 52 Measuring the effect of high school math and science education policy on tobacco use in a national sample
  - A. D. Plunk<sup>1</sup>, W. F. Tate<sup>2</sup>, R. K. Price<sup>1</sup>, L. J. Bierut<sup>1</sup>, R. A. Grucza<sup>1</sup>, <sup>1</sup>Psychiatry, Washington University in St Louis, St. Louis, MO, <sup>2</sup>Education, Washington University in St Louis, St. Louis, MO

#### **PREVENTION**

- 53 Development and validation of the Relapse of Crack Users Scale
  R. S. Pedroso, M. Pettenon, F. J. Zabala, F. Kessler, F. Pechansky, Center for Drug and Alcohol
  Research, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
- A latent class analysis of safe and drug-free schools
   S. Naeger, Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- J. M. Braciszewski<sup>1,2</sup>, R. S. Moore<sup>3</sup>, R. L. Stout<sup>2,1</sup>, <sup>1</sup>Center for Alcohol and Addiction Studies, Brown University, Providence, RI, <sup>2</sup>Decision Sciences Institute, Pacific Institute for Research and Evaluation, Pawtucket, RI, <sup>3</sup>Prevention Research Center, Pacific Institute for Research and Evaluation, Berkeley, CA
- 56 The association between alcohol consumption and domestic violence among women: Preliminary analyses
  - C. Gebara<sup>1</sup>, F. Bhona<sup>2</sup>, A. Noto<sup>1</sup>, M. Vieira<sup>3</sup>, L. Lourenço<sup>2</sup>, <sup>1</sup>Psychobiology, Federal University of São Paulo (UNIFESP), São Paulo, Brazil, <sup>2</sup>Psychology, Federal University of Juiz de Fora (UFJF), Juiz de Fora, Brazil, <sup>3</sup>Statistics, Federal University of Juiz de Fora (UFJF), Juiz de Fora, Brazil
- 57 Withdrawn
- Does cannabis use impact HIV drug and sex risk behaviors?: A Russian perspective
  A. Tyurina<sup>1,2</sup>, E. Krupitsky<sup>2</sup>, D. Cheng<sup>1</sup>, S. Coleman<sup>1</sup>, A. Walley<sup>1</sup>, C. Bridden<sup>1</sup>, E. Zvartau<sup>2</sup>,
  J. Samet<sup>1</sup>, <sup>1</sup>Boston University, Boston Medical Center., Boston, MA, <sup>2</sup>St. Petersburg Pavlov
  State Medical University, St. Petersburg, Russian Federation
- 59 The evaluation of two first-grade preventive interventions on childhood aggression and adolescent marijuana use: A latent transition longitudinal mixture model

  W. Liu¹, S. D. Lynne-Landsman², H. Petras³, K. Masyn⁴, N. Ialongo¹, ¹Mental Health, Johns Hopkins University, Baltimore, MD, ²Health Outcomes and Policy, University of Florida, Gainesville, FL, ³JBS International, Inc., Bethesda, MD, ⁴Education, Harvard, Cambridge, MA
- 60 Life-course social status and smoking/heavy alcohol use in adulthood
  C. Lui<sup>1</sup>, C. Grella<sup>2</sup>, <sup>1</sup>School of Public Health, UCLA, Los Angeles, CA, <sup>2</sup>Integrated Substance
  Abuse Programs, UCLA, Los Angeles, CA

#### **EPIDEMIOLOGY II**

- 61 Prevalence of alcohol and drug use disorders amongst homosexual populations in Australia: comparison with the USA literature
  - A. Ritter, N. Carragher, F. Matthew-Simmons, Drug Policy Modelling Program, University of New South Wales, Sydney, NSW, Australia
- 62 Alcohol and drug prevalence results from the 2007 U.S. National Roadside Survey T. Kelley-Baker, J. H. Lacey, E. Romano, Pacific Institute, Calverton, MD

- 63 The relative crash risk of drugged and drinking driving: Fatal crashes (preliminary results) E. Romano, P. Torres, R. Voas, T. Kelley-Baker, J. Lacey, Pacific Institute, Calverton, MD
- 64 Alcohol problems in drunk drivers in Beijing, China, in 2011: A preliminary survey
  H. Sun<sup>1,2</sup>, R. Zhao<sup>1</sup>, L. Zhang<sup>3</sup>, L. Huang<sup>3</sup>, Z. Wang<sup>1</sup>, Y. Cao<sup>1</sup>, F. Yang<sup>1</sup>, L. Lu<sup>2</sup>, <sup>1</sup>Alcohol and Drug Department, Beijing Hui-Long-Guan Hospital, Peking University, Beijing, China, <sup>2</sup>National Institute on Drug Dependence, Peking University, Beijing, China, <sup>3</sup>Beijing Municipal Department on Education-Through-Labor Assignment, Beijing, China
- 65 Alcohol and tobacco use in a rural district in Nepal
  S. O. Lasopa, L. B. Cottler, S. E. Bradford, Epidemiology, University of Florida,
  Gainesville, FL
- 66 Sports practice and alcohol use by adolescents: A Brazilian study
  A. Bedendo-Souza, E. S. Opaleye, A. Andrade, A. R. Noto, UNIFESP, São Paulo, Brazil
- 67 Intimate partner violence and substance misuse: A survey of women using specialized police stations in Sao Paulo, Brazil

  A. R. Noto, F. S. Onaleye, L. P. Augusto, C. P. Ferri, Departamento de Psicobiologia
  - A. R. Noto, E. S. Opaleye, L. P. Augusto, C. P. Ferri, Departamento de Psicobiologia, Universidade Federal de Sao Paulo, Sao Paulo, Brazil
- 68 Terorrism, war, one-sided violence and global burden of drug use disorders
  B. T. Kerridge, Epidemiology and Biostatistics, University of Maryland, College Park, College Park, MD
- 69 Illicit drug use and relationship aggression among newly married couples
  P. H. Smith<sup>1</sup>, G. G. Homish<sup>1</sup>, K. E. Leonard<sup>1</sup>, R. L. Collins<sup>1</sup>, G. A. Giovino<sup>1</sup>, H. R. White<sup>2</sup>,

  <sup>1</sup>University at Buffalo, The State University of New York, Buffalo, NY, <sup>2</sup>Rutgers University,

  The State University of New Jersey, Newark, NJ
- 70 Male-female differences in frequency of cannabis smoking and onset of newly incident drinking M. R. Samolski, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI
- 71 Early cannabis use and educational trajectories: Epidemiological evidence from 16 countries of the World Mental Health Surveys Consortium
  F. A. Fiestas, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI
- 72 Gender differences in mental health-related quality of life among cannabis users
  S. Lev-Ran<sup>1,2,3</sup>, S. Imtiaz<sup>1</sup>, B. Taylor<sup>2</sup>, K. Shield<sup>2</sup>, J. Rehm<sup>1,2</sup>, B. Le Foll<sup>1,2</sup>, <sup>1</sup>Centre for Addiction and Mental Health, Toronto, ON, Canada, <sup>2</sup>University of Toronto, Toronto, ON, Canada, <sup>3</sup>Social Aeitology of Mental Illness (SAMI) CIHR fellow, Centre for Addiction and Mental Health, Toronto, ON, Canada
- 73 Life satisfaction and its relation with tobacco consumption in scholars of Valencia (Spain)
  F. J. Bueno-Cañigral<sup>1</sup>, C. C. Morales-Manrique<sup>2</sup>, R. Aleixandre-Benavent<sup>2,3</sup>, J. C. Valderrama-Zurián<sup>4</sup>, A. Vidal-Infer<sup>5</sup>, J. C. Perez de los Cobos<sup>6</sup>, <sup>1</sup>Plan Municipal de Drogodependencias, Ayuntamiento de Valencia, Valencia, Spain, <sup>2</sup>Unidad de Información e Investigación Social y Sanitaria (UISYS), Universidad de Valencia, Valencia, Spain, <sup>3</sup>Consejo Superior de Investigaciones Científicas, Valencia, Spain, <sup>4</sup>Conselleria de Gobernación, Generalitat Valenciana, Valencia, Spain, <sup>5</sup>Departamento de Historia de la Ciencia y Documentación, Universidad de Valencia, Valencia, Spain, <sup>6</sup>Hospital de la Santa Creu i Sant Pau, Barcelona, Spain
- 74 Religious attendance and smoking behavior in Baltimore: A prospective analysis using the Epidemiologic Catchment Area (ECA) study

  Q. L. Brown<sup>1</sup>, S. Linton<sup>1</sup>, P. Harrell<sup>1</sup>, B. Mancha<sup>1</sup>, P. Alexandre<sup>1</sup>, K. Chen<sup>2</sup>, W. Eaton<sup>1</sup>, <sup>1</sup>Johns
  - Hopkins Bloomberg School of Public Health, Baltimore, MD, <sup>2</sup>Guang Memorial Hospital, Taipei, Taiwan

- 75 Descriptive study of spirituality in a sample of Spanish addicts
  G. Fuste Coetzee<sup>1,3</sup>, C. Roncero<sup>1,3,2</sup>, L. Rodríguez-Cintas<sup>1,3</sup>, A. Sucarrats<sup>4</sup>, L. Rodríguez-Martos<sup>1,3</sup>, E. Palma<sup>1,3</sup>, C. Barral<sup>1,3</sup>, N. Martínez<sup>1,3</sup>, N. Voltes<sup>1,3</sup>, O. Esteve<sup>1,3</sup>, B. Gonzalvo<sup>1,3</sup>, M. Casas<sup>1,2</sup>, <sup>1</sup>Psychiatry, Hospital Vall Hebron, Barcelona, Spain, <sup>2</sup>Psychiatry, Autonomous University of Barcelona, Barcelona, Spain, <sup>3</sup>Barcelona Public Health Agency, Barcelona, Spain, <sup>4</sup>CSM Horta Guinardó, Barcelona, Spain
- 76 Validity of proposed criteria for DSM-5 nicotine use disorder in 734 Israeli lifetime smokers D. Shmulewitz, M. M. Wall, E. Aharonovich, D. Hasin, Columbia University, New York, NY
- Tobacco use and coca leaf chewing among males and females in Peru's rural highlands population, 2008
   V. O. Cruz<sup>1,2</sup>, D. Barondess<sup>1</sup>, E. Macher<sup>2</sup>, J. Saavedra<sup>2,3</sup>, J. C. Anthony<sup>1,4</sup>, <sup>1</sup>Epidemiology, Michigan State University, East Lansing, MI, <sup>2</sup>Epidemiology, Peruvian National Institute of Mental Health, Lima, Peru, <sup>3</sup>Psychiatry, Peruvian University Cayetano Heredia, Lima, Peru, <sup>4</sup>School of Public Health, Peruvian University Cayetano Heredia, Lima, Peru
- 78 Does quitting nicotine reduce cocaine involvement?
  B. Fairman, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI
- 79 Crack and cocaine users show more sexual risk behavior and family problems than alcohol and other drug users

  H. F. Moura<sup>1,2</sup>, D. Benzano<sup>1</sup>, F. Kessler<sup>1</sup>, F. Pechansky<sup>1</sup>, <sup>1</sup>Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, <sup>2</sup>Psychiatry, Brazilian Armed Forces Hospital, Brasilia, Brazil
- Early life predictors of obtaining help for substance use among substance users in an urban African-American cohort
   R. J. Evans-Polce, E. E. Doherty, M. E. Ensminger, Health, Behavior, and Society, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 81 *The (mis) estimation of neighborhood effects in substance use epidemiology* S. P. Novak, L. Mobley, D. Fishbein, G. Bobashev, Behavioral Epidemiology, RTI International, Research Triangle Park, NC
- Scientific collaboration on drug abuse between Latin America and Europe (2001-2011)
  D. Schneider¹, A. M. Vidal-Infer², M. Bolaños-Pizarro², R. Aleixandre-Benavent³,
  F. J. Bueno-Cañigral⁴, J. C. Valderrama-Zurián⁵, J. C. Perez de los Cobos⁶, ¹Psicologia,
  Universidade Federal de Santa Catarina, Florianópolis, Brazil, ²Departamento de Historia de la
  Ciencia y Documentación, Universidad de Valencia, Valencia, Spain, ³Unidad de Información
  e Investigación Social y Sanitaria UYSIS, CSIC-Universidad de Valencia, Valencia, Spain,
  ⁴Plan Municipal de Drogodependencias, Ayuntamiento de Valencia, Valencia, Spain,
  ⁵Conselleria de Gobernacion, Generalitat Valenciana, Valencia, Spain, ⁶Hospital de la Santa
  Creu i Sant Pau, Barcelona, Spain
- A web-based study of self-treatment of opioid withdrawal symptoms with loperamide R. Daniulaityte<sup>1</sup>, R. Carlson<sup>1</sup>, R. Falck<sup>1</sup>, D. Cameron<sup>2</sup>, S. Udayanga<sup>2</sup>, L. Chen<sup>2</sup>, A. Sheth<sup>2</sup>, <sup>1</sup>Community Health, Wright State University, Dayton, OH, <sup>2</sup>Computer Science, Wright State University, Dayton, OH

#### POLYDRUG ABUSE, DRUG INTERACTIONS

84 Effects of chronic treatment with alcohol on the morphine-induced rewarding effects
M. Shibasaki, T. Tsuyuki, K. Takeda, T. Mori, T. Suzuki, Toxicology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan

- 85 Exposure to ethanol during adolescence or adulthood alters cocaine self-administration in adult rats
  - M. Hutchison, A. L. Riley, American University, Washington, DC
- 86 Differential effects of oxazepam and alprazalam on methamphetamine conditioned place preference in rats
  - G. F. Guerin, A. L. Spence, N. E. Goeders, Pharmacology, Toxicology & Neuroscience, LSUHSC, Shreveport, LA
- 87 Divergence in behavioral measures of negative affect in acute opiate and nicotine dependence in rats
  - J. Gewirtz<sup>2,3</sup>, A. C. Harris<sup>1</sup>, P. E. Rothwell<sup>3</sup>, J. M. Engelmann<sup>2</sup>, <sup>1</sup>Minneapolis Medical Research Foundation, Minneapolis, MN, <sup>2</sup>Psychology, University of Minnesota, Minneapolis, MN, <sup>3</sup>Neuroscience, University of Minnesota, Minneapolis, MN
- 88 Cognitive performance predicted by latent classes of drug use
  P. T. Harrell, S. S. Martins, M. Scherer, K. I. Bolla, W. W. Latimer, Johns Hopkins University,
  Baltimore, MD
- 89 Relationships between sleep disturbances and variations of craving intensity in patients beginning treatment for addiction: A computerized ambulatory monitoring study

  M. Fatseas¹, F. Serre¹, J. Swendsen², M. Auriacombe¹, ¹Addiction Psychiatry (CNRS USR 3413), Universite Bordeaux Segalen, Bordeaux, France, ²CNRS UMR 5287 INCIA, Universite Bordeaux Segalen, Bordeaux, France
- Real-time self-reports of mood, craving, and exposure to relapse triggers before, during, and after cognitive-behavioral therapy (CBT)
   K. L. Preston, K. A. Phillips, D. H. Epstein, Clinical Pharmacology and Therapeutics Research Branch, NIDA Intramural Research Program, Baltimore, MD
- 91 The impact of marijuana use on high and desire for cocaine in cocaine-dependent individuals C. Verrico<sup>1,2</sup>, T. Newton<sup>1,2</sup>, S. Meyer<sup>1,2</sup>, R. De La Garza<sup>1,2</sup>, <sup>1</sup>Baylor College of Medicine, Houston, TX, <sup>2</sup>Michael E. DeBakey VA Medical Center, Houston, TX
- 92 To exercise or not to exercise?: Posing the question to women with substance use disorders L. Islam<sup>1</sup>, P. Dillon<sup>2</sup>, E. Acevedo<sup>3</sup>, P. Nora<sup>1</sup>, D. Svikis<sup>1</sup>, <sup>1</sup>Psychology/AWHARE, Virginia Commonwealth University, Richmond, VA, <sup>2</sup>Center for Translational Science, Virginia Commonwealth University, Richmond, VA, <sup>3</sup>Health & Human Performance, Virginia Commonwealth University, Richmond, VA
- 93 An event-based analysis of dating violence and substance use among female youth in an urban Emergency Department
   Q. Epstein-Ngo¹, R. M. Cunningham¹, L. Whiteside¹, S. T. Chermack¹, B. M. Booth²,
   M. A. Zimmerman¹, F. C. Blow¹, M. A. Walton¹, ¹University of Michigan, Ann Arbor, MI,
- 94 *The relationship between childhood trauma and substance use in domestic violence survivors* M. Lin<sup>1,2</sup>, S. Griffing<sup>1</sup>, R. Sage<sup>1,2</sup>, M. Joseph<sup>1,2</sup>, L. Madry<sup>1,2</sup>, <sup>1</sup>Urban Resource Institute, Brooklyn, NY, <sup>2</sup>ARTC/URI, Brooklyn, NY

<sup>2</sup>University of Arkansas for Medical Sciences, Little Rock, AR

- 95 Sensitivity and performance of derived parameters from human abuse potential studies M. Shram<sup>1</sup>, N. Levy-Cooperman<sup>1</sup>, N. Chen<sup>1</sup>, C. Bartlett<sup>1</sup>, C. Mills<sup>1</sup>, B. Setnik<sup>2</sup>, P. van der Graaf<sup>3</sup>, S. Ratcliffe<sup>3</sup>, K. A. Schoedel<sup>1</sup>, <sup>1</sup>INC Research, Toronto, ON, Canada, <sup>2</sup>Pfizer Inc., Cary, NC, <sup>3</sup>Pfizer Ltd., Sandwich, United Kingdom
- 96 Defining clinically important differences in subjective abuse potential measures
  K. A. Schoedel<sup>1</sup>, M. Shram<sup>1</sup>, N. Levy-Cooperman<sup>1</sup>, N. Chen<sup>1</sup>, C. Mills<sup>1</sup>, B. Setnik<sup>2</sup>, P. van der
  Graaf<sup>3</sup>, S. Ratcliffe<sup>3</sup>, <sup>1</sup>INC Research, Toronto, ON, Canada, <sup>2</sup>Pfizer Inc., Cary, NC, <sup>3</sup>Pfizer
  Ltd., Sandwich, United Kingdom

#### ADOLESCENT DRUG ABUSE II

- 97 Correlates of alcohol and drug use among a sample of college students with comorbid SUDs and gambling problems
  - M. Kulesza, M. Larimer, T. Lostutter, D. Atkins, I. Geisner, Psychiatry, University of Washington, Seattle, WA
- 98 A preliminary study of gambling behaviors of Asian-American adolescents in Connecticut M. Potenza<sup>1</sup>, G. Kong<sup>1</sup>, J. Tsai<sup>1</sup>, D. Cavallo<sup>1</sup>, L. Rugle<sup>3</sup>, M. Steinberg<sup>2</sup>, R. Desai<sup>1</sup>, S. Krishnan-Sarin<sup>1</sup>, <sup>1</sup>Psychiatry, Yale University, New Haven, CT, <sup>2</sup>The Connecticut Council on Problem Gambling, Clinton, CT, <sup>3</sup>Connecticut Problem Gambling Services, Middletown, CT
- 99 Early adolescent onset of gambling and psychiatric health and behaviors among early adulthood gamblers
  - S. S. Martins<sup>1</sup>, G. P. Lee<sup>1</sup>, N. S. Ialongo<sup>1</sup>, C. L. Storr<sup>1,2</sup>, <sup>1</sup>Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, <sup>2</sup>University of Maryland School of Nursing, Baltimore, MD
- 100 Relationship between post traumatic stress disorder (PTSD) and substance use among Nigerian adolescents?
  - B. Ola, C. Okonkwo, Behavioural Medicine, LASUCOM, Ikeja, Nigeria
- 101 Major depression and initiation of alcohol, tobacco, and cannabis use in adolescence J. M. Theobald, S. Mikulich-Gilbertson, S. McWilliams, S. Min, J. Hewitt, M. Stallings, C. Hopfer, Psychiatry, University of Colorado, Denver, Commerce City, CO
- 102 Adolescent conduct and substance use disorders diagnoses predict premature death in early adulthood
  - A. Hoffenberg<sup>1</sup>, S. Salomonsen-Sautel<sup>1</sup>, C. Shriver<sup>3</sup>, S. Min<sup>1</sup>, R. Corley<sup>2</sup>, S. A. Rhea<sup>2</sup>, I. Binswanger<sup>1</sup>, M. Stallings<sup>2</sup>, J. K. Hewitt<sup>2</sup>, J. T. Sakai<sup>1</sup>, C. Hartman<sup>1</sup>, T. J. Crowley<sup>1</sup>, S. Brown<sup>3</sup>, C. J. Hopfer<sup>1</sup>, <sup>1</sup>Psychiatry, University of Colorado, Denver, CO, <sup>2</sup>Institute for Behavioral Genetics, Boulder, CO, <sup>3</sup>University of California at San Diego, San Diego, CA
- 103 Confidence, temptation and callous-unemotional traits among adolescent substance users in residential treatment
  - A. K. Matusiewicz<sup>1</sup>, W. V. Lechner<sup>2</sup>, C. W. Lejuez<sup>1</sup>, <sup>1</sup>Psychology, University of Maryland, College Park, MD, <sup>2</sup>Psychology, Oklahoma State University, Stillwater, OK
- 104 Developing quality indicators for adolescent substance use treatment programs: Does urine drug screening matter?
  - S. B. Hunter<sup>2</sup>, R. Ramchand<sup>1</sup>, B. Griffin<sup>1</sup>, M. Booth<sup>2</sup>, D. McCaffrey<sup>3</sup>, <sup>1</sup>RAND, Washington, DC, <sup>2</sup>RAND, Santa Monica, CA, <sup>3</sup>RAND, Pittsburgh, PA
- 105 Effectiveness of adolescent substance abuse treatments: Is drug screening sufficient?

  M. Schuler<sup>1,2</sup>, B. A. Griffin<sup>2</sup>, R. Ramchand<sup>2</sup>, D. McCaffrey<sup>3</sup>, D. Almirall<sup>4,2</sup>, <sup>1</sup>Mental Health,
  Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, <sup>2</sup>RAND Corporation,
  Arlington, VA, <sup>3</sup>RAND Corporation, Pittsburgh, PA, <sup>4</sup>Institute for Social Research, University
  of Michigan, Ann Arbor, MI
- 106 Contingency management and cognitive behavioral therapy for smoking cessation in adolescent smokers
  - S. Krishnan-Sarin<sup>1</sup>, D. A. Cavallo<sup>1</sup>, J. Cooney<sup>2</sup>, T. Schepis<sup>1</sup>, G. Kong<sup>1</sup>, T. Liss<sup>1</sup>, A. Liss<sup>1</sup>, T. McMahon<sup>1</sup>, C. Nich<sup>1</sup>, T. Babuscio<sup>1</sup>, K. Carroll<sup>1</sup>, B. Rounsaville<sup>1</sup>, <sup>1</sup>Psychiatry, Yale University, New Haven, CT, <sup>2</sup>Psychiatry, University of Connecticut Health Center, Farmington, CT
- 107 Brief intervention for drug-abusing adolescents: One-year outcomes

  K. Winters<sup>1,2</sup>, T. Fahnhorst<sup>1</sup>, A. Botzet<sup>1</sup>, S. Lee<sup>1</sup>, <sup>1</sup>University of Minnesota Medical School,

  Minneapolis, MN, <sup>2</sup>Treatment Research Institute, Philadelphia, PA

- 108 A comparison of DSM-IV and DSM5 SUD criteria in a sample of adolescents

  C. E. Branson<sup>1,2</sup>, D. Haller<sup>1,2</sup>, <sup>1</sup>Psychiatry, Columbia University College of Physicians & Surgeons, New York, NY, <sup>2</sup>Psychiatry, St. Luke's-Roosevelt Hospital, New York, NY
- 109 Differences between DSM-IV diagnostic orphans and abusers among adolescent alcohol and cannabis users
  - S. Fernandez-Artamendi, J. R. Fernandez-Hermida, R. Secades-Villa, C. Lopez-Nuñez,
  - S. Weidberg-Lopez, O. Garcia-Rodriguez, Department of Psychology, University of Oviedo, Oviedo, Spain

#### DRUGS IN ADOLESCENTS: ANIMAL STUDIES

- 110 Age-dependent differences in morphine-induced taste aversions
  - Z. E. Hurwitz, A. P. Merluzzi, A. L. Riley, Psychology, American University, Washington, DC
- 111 Self-administration of iv cocaine during extended access in adolescent and adult rats selectively bred for high and low saccharin intake
  - N. Holtz, M. E. Carroll, University of Minnesota, Minneapolis, MN
- Adolescent risk-taking and cocaine self-administration; A vicious cycle?
   B. Setlow, M. R. Mitchell, V. C. Weiss, D. Morgan, Dept. of Psychiatry, University of Florida, Gainesville, FL
- 113 Atomoxetine treatment in adolescent rats with an ADHD phenotype does not augment vulnerability to cocaine addiction
  - C. J. Jordan<sup>1</sup>, R. C. Harvey<sup>1</sup>, M. M. Cruz<sup>1</sup>, L. P. Dwoskin<sup>2</sup>, K. M. Kantak<sup>1</sup>, <sup>1</sup>Psychology, Boston University, Boston, MA, <sup>2</sup>Pharmaceutical Sciences, University of Kentucky, Lexington, KY
- 114 The effects of adolescent exposure to methylphenidate on the aversive properties of cocaine in adulthood
  - B. Wetzell, A. L. Riley, Psychology, American University, Washington, DC
- 115 Methylphenidate vs. atomoxetine during adolescence on dopamine transporter function and cellular expression during adulthood in an ADHD model
  - S. S. Somkuwar<sup>1</sup>, A. Deaciuc<sup>1</sup>, K. M. Kantak<sup>2</sup>, L. P. Dwoskin<sup>1</sup>, <sup>1</sup>University of Kentucky, Lexington, KY, <sup>2</sup>University of Boston, Boston, MA

#### MARIJUANA/CANNABINOIDS: ANIMAL STUDIES

- 116 Peripheral selectivity as an approach to circumvent dysphoric effects of cannabinoid CB1 receptor inverse agonists
  - H. H. Seltzman, A. Fulp, Y. Zhang, K. Bortoff, R. Snyder, R. Maitra, Discovery Sciences, Research Triangle Institute, Research Triangle Park, NC
- 117 The kynurenine 3-hydroxylase inhibitor Ro 61-8048 blocks THC-induced activation of glutamatergic and dopaminergic signaling in the ventral tegmental area and nucleus accumbens shell in rats
  - P. Mascia<sup>1</sup>, Z. Justinova<sup>1,2</sup>, M. Scherma<sup>3</sup>, G. Tanda<sup>4</sup>, S. Ferre<sup>1</sup>, H. Wu<sup>2</sup>, M. Solinas<sup>5</sup>, W. Fratta<sup>3</sup>, R. Schwarcz<sup>2</sup>, S. Goldberg<sup>1</sup>, <sup>1</sup>Preclinical Pharmacology Section, NIDA, NIH, Baltimore, MD, <sup>2</sup>Dept. of Psychiatry, University of Maryland School of Medicine, Baltimore, MD, <sup>3</sup>B.B. Brodie, University of Cagliari, Monserrato, Italy, <sup>4</sup>Psychobiology Section, NIDA, NIH, Baltimore, MD, <sup>5</sup>Inst. de Biologie et Physiologie Cellulaires, University of Poitiers, Poitiers, France
- 118 Activation of the brain noradrenergic system during cannabinoid withdrawal in mice M. Funada, K. Tomiyama, K. Wada, Drug Dependence Research, NIMH, NCNP, Kodaira, Japan

- 119 Adolescent exposure to delta(9)-tetrahydrocannabinol (THC) induces rapid escalation of cocaine intake in adult male rats
  - E. M. Jutkiewicz, C. Meurice, A. Friedman, C. Liebowitz, Pharmacology, University of Michigan, Ann Arbor, MI
- 120 Hormone modulation of motoric but not antinociceptive effects of i.c.v. THC in ovariectomized female rats
  - A. A. Wakley, R. M. Craft, Psychology, Washington State University, Pullman, WA

#### **COCAINE: HUMAN STUDIES**

- Which cocaine use outcome is most associated with clinical improvement in cocaine treatment trials?
  - K. M. Kampman, K. G. Lynch, J. E. Vernace, N. I. Basta, W. Dundon, H. M. Pettinati, Psychiatry, University of Pennsylvania, Philadelphia, PA
- 122 Incentives are effective across cocaine-dependent outpatients with different economic resources G. Garcia-Fernandez<sup>1</sup>, E. Peña-Suarez<sup>2</sup>, R. Secades-Villa<sup>2</sup>, E. Sanchez-Hervas<sup>3</sup>, O. García-Rodríguez<sup>2</sup>, S. Fernandez-Artamendi<sup>2</sup>, J. Fernandez-Hermida<sup>2</sup>, <sup>1</sup>University Complutense of Madrid, Madrid, Spain, <sup>2</sup>University of Oviedo, Oviedo, Spain, <sup>3</sup>Valencia Regional Health Department, Valencia, Spain
- Implementation and adaptation of contingency management treatments for cocaine addicts in community settings
   R. Secades-Villa<sup>1</sup>, E. Sanchez-Hervás<sup>2</sup>, O. García-Rodriguez<sup>1</sup>, G. García-Fernández<sup>1</sup>,
   <sup>1</sup>Psychology, University of Oviedo, Oviedo, Spain, <sup>2</sup>Valencia State Health Agency, Valencia, Spain
- 124 Predictors of crack cocaine use in the homeless population in British Columbia, Canada C. G. Schütz<sup>1</sup>, A. Clarkson<sup>1</sup>, K. Li<sup>1</sup>, M. Al-Desouki<sup>1,2</sup>, M. Krausz<sup>1</sup>, <sup>1</sup>Psychiatry, Univ. of British Columbia, Vancouver, BC, Canada, <sup>2</sup>Psychiatry, King Saud University, Riyadh, Saudi Arabia
- 125 Topiramate and contingency management in the treatment of cocaine dependence: A randomized controlled trial
  - A. Umbricht<sup>1</sup>, A. DeFulio<sup>1</sup>, D. A. Tompkins<sup>1</sup>, E. L. Winstanley<sup>2</sup>, M. Z. Mintzer<sup>1</sup>, E. C. Strain<sup>1</sup>, G. E. Bigelow<sup>1</sup>, <sup>1</sup>Psychiatry, Johns Hopkins University School of Medicine, Baltimore, MD, <sup>2</sup>Psychiatry, University of Cincinnati, Cincinnati, OH
- 126 Clinical efficacy of disulfiram at higher doses in cocaine-dependent patients

  A. Oliveto<sup>1</sup>, M. P. Chopra<sup>3</sup>, J. Thostenson<sup>1</sup>, J. B. Guise<sup>1</sup>, J. McGaugh<sup>1</sup>, D. K. Williams<sup>1</sup>,

  C. Cargile<sup>4</sup>, W. K. Bickel<sup>2</sup>, M. J. Mancino<sup>1</sup>, <sup>1</sup>UAMS, Little Rock, AR, <sup>2</sup>VA Tech, Roanoke, VA,

  <sup>3</sup>Boston VAHCS, Brockton, MA, <sup>4</sup>Texas A&M Health Science Center, College Station, TX
- Atomoxetine for the treatment of cocaine dependence: A pilot double-blind, randomized outpatient trial
   S. L. Walsh<sup>1,2,3</sup>, L. S. Middleton<sup>1,2</sup>, P. A. Nuzzo<sup>2</sup>, C. J. Wong<sup>4</sup>, C. R. Rush<sup>1</sup>, M. R. Lofwall<sup>3,2</sup>,
   <sup>1</sup>Behavioral Science, Univ of Kentucky, Lexington, KY, <sup>2</sup>Center on Drug and Alcohol Research, Univ of Kentucky, Lexington, KY, <sup>3</sup>Psychiatry, Univ of Kentucky, Lexington, KY, <sup>4</sup>Eli Lilly and Company, Indianapolis, IN
- 128 Modafinil, cognition and treatment outcome in cocaine-dependent outpatients: Pilot results E. Aharonovich<sup>1,2</sup>, D. Hasin<sup>1,2</sup>, E. Nunes<sup>1,2</sup>, <sup>1</sup>Columbia University, New York, NY, <sup>2</sup>NYS Psychiatric Institute, New York, NY

- 129 Withdrawn
- 130 A new model for the apomorphine test as a biological marker in cocaine-dependent patients
  C. Roncero<sup>1,2,3</sup>, G. Fuste<sup>1,2</sup>, L. Grau-López<sup>1,2</sup>, C. Daigre<sup>1,2</sup>, L. Miquel<sup>1,2</sup>, M. Corominas<sup>1,3</sup>,
  D. Bachiller<sup>1,2</sup>, A. Egido<sup>1,2</sup>, X. Castells<sup>4</sup>, S. Gómez-Baeza<sup>1,2</sup>, J. Alvarós<sup>1,2</sup>, S. Fuentes<sup>1,2</sup>,
  Y. Pallarés<sup>1,2</sup>, M. Casas<sup>1,2,3</sup>, <sup>1</sup>Psychiatry, Out-Patient Drug Clinic, Barcelona, Spain, <sup>2</sup>Barcelona
  Public Health Agency, Barcelona, Spain, <sup>3</sup>Autonomous University of Barcelona, Barcelona,
  Spain, <sup>4</sup>Girona University, Girona, Spain
- The association between stress sensitivity and attention/executive function in male cocaine-dependent treatment-seekers
   C. Onyemekwu², O. Wu¹, A. Glass¹, N. Vadhan¹, W. N. Raby¹,², E. V. Nunes¹,², ¹Psychiatry/ Division on Substance Abuse, Columbia University, New York, NY, ²Psychiatry/ Division on Substance Abuse, New York State Psychiatric Institute, New York, NY
- 132 *CRF dose-response in cocaine-dependent vs. normal volunteer subjects*E. A. Ducat, X. Cai, B. Mayer-Blackwell, B. Ray, A. Ho, M. J. Kreek, Laboratory of the Biology of Addictive Diseases, Rockefeller University, New York, NY
- Evidence that propranolol may alter clinically relevant memory reconsolidation processes in cocaine-dependent humans
   M. E. Saladin<sup>1</sup>, K. M. Gray<sup>1</sup>, T. J. Abbott<sup>1</sup>, S. D. Yeatts<sup>1</sup>, S. D. LaRowe<sup>1,2</sup>, A. L. McRae-Clark<sup>1</sup>, K. J. Hartwell<sup>1,2</sup>, K. T. Brady<sup>1,2</sup>, <sup>1</sup>Medical University of SC, Charleston, SC, <sup>2</sup>Ralph H. Johnson VAMC, Charleston, SC
- 134 Effects of smoked cocaine and levodopa-carbidopa-entacapone administration on cocaine-related attentional bias in cocaine abusers
   N. P. Vadhan, G. Bedi, E. V. Nunes, R. W. Foltin, A. Bisaga, Psychiatry, Columbia University
   & New York State Psychiatric Institute, New York, NY
- 135 Effects of escitalopram on attentional bias to cocaine words in cocaine-dependent subjects S. Liu<sup>1</sup>, S. D. Lane<sup>1</sup>, J. M. Schmitz<sup>1</sup>, K. A. Cunningham<sup>2</sup>, F. G. Moeller<sup>1</sup>, <sup>1</sup>Psychiatry, University of Texas Health Science Center, Houston, TX, <sup>2</sup>Pharmacology and Toxicology, University of Texas Medical Branch, Galveston, TX
- Response inhibition and psychomotor speed in cocaine-dependent individuals: Effects of sleep deprivation
   B. K. Bracken<sup>1,2</sup>, G. H. Trksak<sup>1,2</sup>, D. M. Penetar<sup>1,2</sup>, W. L. Tartarini<sup>1</sup>, M. A. Maywalt<sup>1</sup>, C. M. Dorsey<sup>1,2</sup>, S. E. Lukas<sup>1,2</sup>, <sup>1</sup>McLean Hospital, Belmont, MA, <sup>2</sup>Harvard Medical School, Boston, MA
- 137 Analyzing human cocaine use patterns to inform animal addiction model development
  T. J. Beveridge<sup>2</sup>, P. Wray<sup>1</sup>, A. Brewer<sup>1</sup>, B. Shapiro<sup>1</sup>, J. J. Mahoney<sup>1</sup>, T. F. Newton<sup>1</sup>, C. N. Haile<sup>1</sup>,
  R. De La Garza, II<sup>1</sup>, <sup>1</sup>Baylor College of Medicine, Houston, TX, <sup>2</sup>Wake Forest School
  Medicine, Winston Salem, NC
- Explicit and implicit memory of drug-related and neutral visual cues in cocaine abusers and college athletes

  S. Ray, M. E. Bates, R. Pandina, Rutgers Center of Alcohol Studies, Piscataway, NJ

- 139 Validation of Brazilian version of Internalized Stigma of Mental Illness Scale adapted for substance dependence
  - P. S. Silveira<sup>1</sup>, R. G. Soares<sup>2</sup>, G. L. Ferreira<sup>2</sup>, A. R. Noto<sup>1</sup>, T. M. Ronzani<sup>2</sup>, <sup>1</sup>Psicobilogia, Universidade Federal de São Paulo, São Paulo, Brazil, <sup>2</sup>Universidade Federal de Juiz de Fora, Juiz de Fora, Brazil
- 140 Perceived stress and patient retention of cocaine-dependent males in a double-blind treatment research study
  - J. W. Davidson<sup>2</sup>, W. N. Raby<sup>1,2</sup>, E. V. Nunes<sup>1,2</sup>, <sup>1</sup>Psychiatry/Division on Substance Abuse, Columbia University, New York City, NY, <sup>2</sup>Psychiatry/Division on Substance Abuse, New York State Psychiatric Institute, New York, NY
- 141 Should caffeine withdrawal and Caffeine Use Disorder be included in the DSM-V: A survey of professionals in addiction-related organizations
  - A. J. Budney, P. C. Brown, University of Arkansas for Medical Sciences, Little Rock, AR
- Neuropsychological correlates of risky alcohol use by young adults
   M. Lyvers, J. Tobias-Webb, M. Edwards, Psychology, Bond University, Gold Coast, QLD, Australia

# **Symposium XIII**

Flores 4 10:00 - 12:00 PM

# FROM BENCH TO BEDSIDE: CAN NEUROBIOLOGICAL FINDINGS BE USED TO IMPROVE TREATMENT OUTCOMES IN MARIJUANA-USING YOUTH?

Chairs: Krista M. Lisdahl and Alan J. Budney

- 10:00 Marijuana use among young adult tobacco users: Risky or benign?

  Danielle Ramo, NIDA Substance Abuse Treatment and Services Research Program, University of California, San Francisco, San Francisco, CA
- 10:25 Effects of marijuana exposure on prefrontal cortex cortical thickness in emerging adults: Gender effects

  Jenessa Price, University of Cincinnati, Cincinnati, OH
- 10:50 Altered inhibitory processing in marijuana smokers is related to age of onset of use Staci Gruber, McLean Hospital/Harvard Medical School, Belmont, MA
- 11:15 Neuronal processing during delay discounting in adolescent marijuana users
  Catherine Stanger, University of Arkansas for Medical Sciences, Little Rock, AR
- 11:40 Genetic factors and brain-based response to cannabis treatment: An investigation with high-risk adolescents

Sarah W. Feldstein Ewing, University of New Mexico, Albuquerque, NM

# Symposium XIV

Flores 5 10:00 - 12:00 PM

# EXTENDING THE DATA ON XR-NTX IN OPIOID DEPENDENCE: INFECTIOUS DISEASE, HEALTH PROFESSIONALS, JUSTICE SYSTEMS AND COST

Chairs: Edward V. Nunes and Joshua D. Lee

10:00 XR-NTX efficacy and safety in subpopulations with HIV and hepatitis C
Edward V. Nunes, New York State Psychiatric Institute, Columbia University, New York, NY

- 10:25 *An open-label safety study of XR-NTX in health professionals*A. Thomas McLellan, Treatment Research Institute, Philadelphia, PA
- 10:50 *XR-NTX issues and findings in justice system populations* Joshua D. Lee, New York University, New York, NY
- 11:15 Retrospective health economic studies of XR-NTX in commercial insureds

  Dennis McCarty, Public Health and Preventive Medicine, Oregon Health and Science
  University, Portland, OR
- 11:40 Discussant

Charles P. O'Brien, Treatment Research Center, University of Pennsylvania, Philadelphia, PA

#### **Oral Communications 18**

Flores 1-3 10:00 - 12:00 PM

#### PICTURE THIS: BRAINS ON STIMULANTS

Chairs: Anna Rose Childress and Doris Payer

- 10:00 Wavelet-transformed regional fMRI signal coherence characterizes individual differences in craving inhibition
  - S. Lam, Y. Li, Z. Wang, J. J. Suh, C. P. O'Brien, J. F. Magland, A. R. Childress, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
- 10:15 *MDMA users have increased regional brain activation during Stroop task performance* R. L. Cowan, M. A. Benningfield, T. J. Watkins, J. U. Blackford, Vanderbilt, Nashville, TN
- 10:30 Cognitive control and gender-specific neural predictors of relapse in cocaine dependence C. Li, S. Zhang, S. Hu, S. Bednarski, E. Erdman, R. Sinha, C. Mazure, X. Luo, Psychiatry, Yale University, New Haven, CT
- 10:45 Effects of d-amphetamine on brain activation of cocaine-dependent subjects during a Go/NoGo task of inhibitory control
  - S. D. Lane<sup>1</sup>, F. G. Moeller<sup>1</sup>, J. L. Steinberg<sup>1</sup>, L. Ma<sup>1</sup>, T. R. Kosten<sup>2</sup>, P. A. Narayana<sup>3</sup>, <sup>1</sup>Psychiatry & Behavioral Sciences, UTHSC-Houston, Houston, TX, <sup>2</sup>Psychiatry, Baylor School of Medicine, Houston, TX, <sup>3</sup>Diagnostic and Interventional Imaging, UTHSC-Houston, Houston, TX
- 11:00 Using real-time fMRI to track "loss of cognitive control" due to evocative (drug and non-drug) cues
  - A. Childress<sup>1,2</sup>, J. F. Magland<sup>1</sup>, S. C. Lam<sup>1</sup>, Z. Wang<sup>1</sup>, J. Suh<sup>1,2</sup>, R. Fabianski<sup>1</sup>, K. Young<sup>1</sup>, M. Gawrysiak<sup>1,2</sup>, J. Lupardus<sup>1</sup>, T. Franklin<sup>1</sup>, R. Ehrman<sup>1,2</sup>, M. Goldman<sup>1</sup>, R. Szucs-Reed<sup>1</sup>, D. Langleben<sup>1</sup>, C. O'Brien<sup>1,2</sup>, <sup>1</sup>Psychiatry, Perelman School Medical University of Pennsylvania, Philadelphia, PA, <sup>2</sup>VA MIRECC, Philadelphia, PA
- 11:15 Impact of menstrual cycle phase on brain activity in cocaine-dependent women during a psychosocial stress task
  - M. Moran-Santa Maria, J. Pfeiffer, K. S. Macia, L. Nunn, K. T. Brady, Psychiatry and Behavioral Sciences, MUSC, Charleston, SC
- 11:30 Differences in regional cerebral blood flow response to a 5HT3 antagonist in early- and late-onset cocaine dependence
  - B. Adinoff<sup>1,2</sup>, M. D. Devous<sup>2</sup>, M. J. Williams<sup>4</sup>, T. S. Harris<sup>2</sup>, S. E. Best<sup>1,2</sup>, H. Dong<sup>3</sup>, T. A. Zielinski<sup>2</sup>, <sup>1</sup>VA North Texas Health Care System, Dallas, TX, <sup>2</sup>UT Southwestern Medical Center, Dallas, TX, <sup>3</sup>UT School of Public Health, Dallas, TX, <sup>4</sup>Productive Rehabilitation Institute of Dallas Ergonomics, Dallas, TX

11:45 Investigating the D3 dopamine receptor across addicted cohorts with [11C](+)PHNO PET D. Payer, A. Behzadi, M. Zack, S. Houle, T. George, S. Kish, I. Boileau, Centre for Addiction and Mental Health, Toronto, ON, Canada

#### **Oral Communications 19**

Flores 6-8 10:00 - 12:00 PM

#### THE ROLE OF STRESS IN ADDICTION

Chairs: Ella M. Nikulina and Dongju Seo

- 10:00 Intra-VTA CRF-R1 and CRF-R2 antagonism prevents social-stress induced escalation of cocaine binge
  - C. O. Boyson, L. A. Weiner, A. Shimamoto, K. A. Miczek, Tufts University, Medford, MA
- 10:15 Social stress-induced sensitization to amphetamine: Essential role of BDNF signaling in the mesocorticolimbic circuits
   E. M. Nikulina<sup>1</sup>, J. Wang<sup>2</sup>, R. Bina<sup>1</sup>, E. Terwilliger<sup>1</sup>, C. E. Bass<sup>3</sup>, R. P. Hammer, Jr<sup>1,2</sup>, <sup>1</sup>Basic Medical Sciences, University of Arizona College of Medicine Phoenix, Phoenix, AZ, <sup>2</sup>Arizona State University, Tempe, AZ, <sup>3</sup>SUNY Buffalo, Buffalo, NY
- 10:30 Effect of oxytocin on stress-induced reactivity in marijuana-dependent individuals
  A. McRae-Clark, M. Moran-Santa Maria, N. L. Baker, K. T. Brady, Medical University of South Carolina, Charleston, SC
- 10:45 Amygdala and insula activity during stress differs by treatment and correlates with long-term smoking outcomes
  - H. Kober, J. A. Brewer, C. M. DeLeone, H. E. Johnson, C. Minnix-Cotton, K. Tuit, K. M. Carroll, R. Sinha, Psychiatry, Yale University, New Haven, CT
- 11:00 Decreased ventromedial prefrontal activity during stress exposure is associated with emotion regulation difficulties in early abstinent alcohol-dependent patients

  D. Seo, J. Levine, R. Sinha, Psychiatry, Yale University, New Haven, CT
- 11:15 Lifetime stress is associated with elevated addiction severity index scores in methamphetamine-dependent participants
   J. J. Mahoney<sup>1,2</sup>, Y. Omar<sup>1,2</sup>, K. Cooper<sup>1,2</sup>, E. Ross<sup>1,2</sup>, R. De La Garza<sup>1,2</sup>, T. Newton<sup>1,2</sup>, <sup>1</sup>Baylor College of Medicine, Houston, TX, <sup>2</sup>Michael E. DeBakey VA Medical Center, Houston, TX
- 11:30 Association of Post-Traumatic Stress Disorder with post-treatment outcomes of methamphetamine-dependent adults
   S. Glasner-Edwards, L. J. Mooney, A. Ang, P. Marinelli-Casey, M. Hillhouse, R. A. Rawson, Psychiatry, UCLA Integrated Substance Abuse Programs, Los Angeles, CA
- 11:45 Unhealed wounds: Chronic cocaine users with prior trauma exhibit different resting state functional connectivity from those without prior trauma
   M. J. Gawrysiak<sup>1,2</sup>, J. Suh<sup>1,2</sup>, Y. Li<sup>1</sup>, R. Fabianski<sup>1</sup>, C. Beck<sup>1</sup>, J. Lupardus<sup>1</sup>, A. R. Childress<sup>1,2</sup>, <sup>1</sup>Psychiatry, University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, <sup>2</sup>VA VISN 4 MIRECC, Philadelphia VA Medical Center, Philadelphia, PA

# BRUNCH WITH CHAMPIONS (PRE-REGISTRANTS ONLY)

Capra 12:00 - 1:30 PM

# Symposium XV

Flores 5 1:30 - 3:30 PM

ABUSE OF BUPRENORPHINE AND BUPRENORPHINE AND NALOXONE: THE EMERGING EPIDEMIC AND WHAT YOU CAN DO ABOUT IT

Chairs: John Mendelson and Marc Auriacombe

- 1:30 Laboratory evidence that naloxone attenuates the abuse liability of buprenorphine John Mendelson, St Luke's Hospital, San Francisco, CA
- 1:55 Buprenorphine-naloxone as an abuse-deterrent drug
  Richard Dart, Rocky Mountain Poison and Drug Center, Denver, CO
- 2:20 Buprenorphine in Europe: Lessons from France. How to combine evidence-based medicine, safety driven concerns and a public health perspective?

  Marc Auriacombe, Medical School of the University of Bordeaux, Bordeaux, France
- 2:45 Non-pharmacologic approaches to therapeutically managing diversion Michelle Lofwall, University of Kentucky College of Medicine, Lexington, KY
- 3:10 *Discussant*Sharon Walsh, University of Kentucky College of Medicine, Lexington, KY

# Symposium XVI

Flores 4 1:30 - 3:30 PM

SLEEP DISTURBANCE IN ABSTINENCE: UNIFYING THEMES AND TREATMENT IMPLICATIONS FOR ALCOHOL, CANNABIS, COCAINE AND OPIATE DEPENDENCE

Chairs: Peter Morgan and Kirk J. Brower

- 1:30 Modafinil, sleep and cocaine dependence: A translational trial of the role of sleep in mediating treatment outcome
  - Peter Morgan, Yale University, New Haven, CT
- 2:00 Homeostatic sleep drive impairment and circadian dysregulation in alcohol dependence Kirk Brower, University of Michigan, Ann Arbor, MI
- 2:30 Disordered sleep during cannabis withdrawal Ryan Vandrey, Johns Hopkins University, Baltimore, MD
- 3:00 Sleep difficulties in methadone maintenance treatment patients Michael Stein, Brown University, Providence, RI

#### **Oral Communications 20**

Flores 1-3 1:30 - 3:30 PM

#### GETTING EXCITED ABOUT GLUTAMATE

Chairs: Wendy J. Lynch and Noelle C. Anastasio

- 1:30 Sex and hormonal influences on motivation for cocaine at different stages of addiction:
   Neurobiological mechanisms
   W. J. Lynch, S. E. Doyle, C. Ramoa, Psychiatry and Neurobehavioral Sciences, Univ of Virginia, Charlottesville, VA
- 1:45 Enhanced sensitivity to attenuation of methamphetamine seeking by the mGluR2/3 agonist LY379268 in rats with a history of extended self-administration
   P. R. Kufahl, L. R. Watterson, N. E. Nemirovsky, L. E. Hood, A. Villa, N. Zautra, M. F. Olive, Arizona State University, Tempe, AZ
- Disruption in the serotonin 2C receptor (5-HT2CR) and N-methyl-D-aspartate receptor (NMDAR) protein complex in the prefrontal cortex represents a neuromolecular driver of impulsivity
   N. C. Anastasio<sup>1,2</sup>, K. A. Cunningham<sup>1,2</sup>, <sup>1</sup>Center for Addiction Research, UTMB Galveston, Galveston, TX, <sup>2</sup>Pharmacology and Toxicology, UTMB Galveston, Galveston, TX
- 2:15 Cortical excitability in current cocaine users: A transcranial magnetic stimulation study investigating glutamatergic and GABAergic processes
   C. A. Hanlon, S. R. Fredrich, M. S. George, Medical University of South Carolina, Charleston, SC
- 2:30 Effect of zonisamide on cocaine craving and reinforcement: An interim analysis
  P. Henry, G. E. Bigelow, A. Umbricht, Department of Psychiatry, Johns Hopkins University
  School of Medicine, Baltimore, MD
- 2:45 *A controlled trial of memantine as an adjunct to long-acting naltrexone for opioid dependence*A. Bisaga<sup>2,1</sup>, M. A. Sullivan<sup>2,1</sup>, A. Glass<sup>2</sup>, D. J. Brooks<sup>1</sup>, K. Carpenter<sup>2,1</sup>, J. J. Mariani<sup>2,1</sup>,
  F. R. Levin<sup>2,1</sup>, E. V. Nunes<sup>2,1</sup>, <sup>1</sup>Substance Abuse, NYSPI, New York, NY, <sup>2</sup>Psychiatry, Columbia University, New York, NY
- 3:00 Association between N-acetylcysteine medication compliance and homocysteine levels
  R. J. Malcolm<sup>1</sup>, S. D. LaRowe<sup>2,1</sup>, K. Irk<sup>1</sup>, K. Huebner<sup>1</sup>, <sup>1</sup>Psychiatry & Behavioral Sciences,
  Medical University of South Carolina, Charleston, SC, <sup>2</sup>Mental Health, Ralph H. Johnson
  VAMC, Charleston, SC
- 3:15 The effect of ketamine on use-related measures in cocaine-dependent volunteers
  E. Dakwar, F. R. Levin, R. W. Foltin, E. V. Nunes, C. L. Hart, NYSPI, New York City, NY

## **Oral Communications 21**

Flores 6-8 1:30 - 3:30 PM

#### **HI-TECH TREATMENT**

Chairs: Van L. King and Deborah S. Hasin

1:30 Computer-based delivery of therapy for addiction: A patient survey of access to electronic devices

S. Heffernan, A. Chaudhry, V. King, E. Strain, Johns Hopkins University School of Medicine, Baltimore, MD

- 1:45 HealthCall: A randomized trial of technologically enhanced brief intervention for heavy drinking in 255 HIV primary care patients
   D. Hasin<sup>1,2</sup>, E. Aharonovich<sup>1,2</sup>, E. Greenstein<sup>1</sup>, M. Pavlicova<sup>1</sup>, M. Wainberg<sup>1</sup>, B. Johnston<sup>3</sup>, <sup>1</sup>Columbia University, New York, NY, <sup>2</sup>NYS Psychiatric Institute, New York, NY, <sup>3</sup>Mt. Sinai Medical Center, New York, NY
- 2:00 Predicting drug use at 6 months using changes in self-report of motivation, intention, and efficacy during a computer-delivered brief intervention session
   S. J. Ondersma¹, J. R. Beatty¹, D. S. Svikis², ¹Psychiatry & Behavioral Neurosciences, and Merrill Palmer Skillman Institute, Wayne State University, Detroit, MI, ²Addiction & Women's Health, Virginia Commonwealth University, Richmond, VA
- 2:15 A cognitive behavioral therapy-based text messaging intervention for methamphetamine dependence
  V. Keoleian<sup>1,2</sup>, D. L. Polcin<sup>3</sup>, M. Brown<sup>2</sup>, S. A. Stalcup<sup>2</sup>, G. P. Galloway<sup>1,2</sup>, <sup>1</sup>Addiction & Pharmacology Research Laboratory, California Pacific Medical Center Research Institute, San Francisco, CA, <sup>2</sup>New Leaf Treatment Center, Lafayette, CA, <sup>3</sup>Alcohol Research Group, Emeryville, CA
- Delivery of individual substance abuse counseling using a web-based videoconferencing platform: A randomized study
   V. L. King, M. Kidorf, J. Peirce, R. Brooner, Psychiatry, Johns Hopkins SOM, Baltimore, MD
- 2:45 3-Month outcomes following evidence-based alcohol telemedicine therapy for rural offenders M. Staton-Tindall<sup>1</sup>, J. M. Webster<sup>2</sup>, C. G. Leukefeld<sup>2</sup>, <sup>1</sup>College of Social Work, University of Kentucky, Lexington, KY, <sup>2</sup>Behavioral Science, University of Kentucky, Lexington, KY
- 3:00 Self-efficacy, coping skills, and problems related to marijuana use in computer-assisted and therapist-delivered interventions
   P. C. Brown, A. J. Budney, C. Stanger, Center for Addiction Research, University of Arkansas for Medical Sciences, Little Rock, AR
- 3:15 How interactions with a computer-based video intervention can affect HIV test rates
  I. D. Aronson<sup>1</sup>, S. Rajan<sup>1</sup>, L. A. Marsch<sup>2</sup>, T. C. Bania<sup>3</sup>, <sup>1</sup>Center for Technology and Health,
  NDRI, New York, NY, <sup>2</sup>Dartmouth College, Lebanon, NH, <sup>3</sup>Columbia University, New
  York, NY

#### SWEEPSTAKES DRAWING

Flores 4 3:45 - 4:00 PM

YOU MUST BE SEATED IN ONE OF THE SESSIONS STARTING AT 1:30 PM IN ORDER TO HAVE YOUR BADGE COLLECTED

HAVE A SAFE TRIP HOME!

SEE YOU IN SAN DIEGO, CALIFORNIA, JUNE 15-20, 2013

Aarde, S.M. 87, 88     Abbott, T.J. 105     Abbott, T.J. 105     Abbott, T.J. 105     Abdelrahman, D. 61     Amato, T.C. 14     Amato, T.C. 14     Back, S.E. 82     Abdoullah, O.M. 18     Ameringer, K.J. 57     Backinger, C.L. 71     Back, S.E. 82     Abu-Back, S.E. 83     Bacr, J.S. 96     Amrhein, P.C. 64, 67     Baggott, M.J. 19     Balley, G.L. 66, 76     Baggott, M.J. 19     Balley, G.L. 108     Adevendo, E. 101     Anastasio, N.C. 54, 110     Acevedo, E. 101     Anastasio, N.C. 54, 110     Baker, N.L. 108     Baldari, M. 8     Acosta, M.C. 4, 65     Anderson, B. 94     Aderson, B. 94     Ballara, Y.P. 61     Adams, E. 54     Andrade, A. 99     Adams, R.S. 62     Anglin, M.D. 13, 77     Balter, R. 1     Adelson, M. 58     Adinoff, B. 11, 17, 107     Adler, M.W. 7, 22     Agosti, V. 57     Agosti, V. 57     Agudelo, M. 86     Aharonovich, E. 64, 100, 104, Appel, N.M. 28     Almed, R. 63     Ahmed, M.S. 16, 61     Ahmed, R. 63     Ahmed,			
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Sunday, June 10

I. A stimulating soak in "bath salts": Investigating cathinone derivative drugs
Chairs: Michael A. Taffe and Annette E. Fleckenstein

The recreational use of substituted cathinone drugs such as 4-methylmethcathinone (mephedrone), methylenedioxypyrovalerone (MDPV) and methylenedioxymethcathinone (methylone) have increased dramatically in the past two years in both the U.K. and the U.S. There is very little scientific evidence available from which to predict human risks from acute exposure, liability for compulsive use / dependence and/or lasting neurotoxic effects of these novel drugs of abuse. Initial evidence is just emerging from preclinical laboratories, including the participants in this proposal. The first aim of the symposium will be to illuminate the scope of the cathinone problem in the U.S. population as evidenced by law enforcement activity and poison control center data. The second aim is to contrast acute locomotor, thermoregulatory and behavioral effects of cathinone drugs in rat and mouse models. The third aim will be to present the initial preclinical evidence on neuropharmacology and relative risks for lasting toxic damage to brain monoamine systems. The fourth aim of this symposium is to overview risk for compulsive use as indexed by rodent self-administration paradigms. The talks will leverage the speakers' considerable expertise with substituted amphetamine drugs of abuse to also contrast effects of these novel cathinone stimulants with the more-established amphetamine drugs with longer abuse histories in human populations.

II. Mechanisms involved in effects of abused drugs on HIV and the immune system Chairs: Toby K. Eisenstein and Madhaven Nair

Drugs of abuse such as opioids are known to enhance the pathogenesis of various infections, including HIV infection. Recently, potential beneficial effects of cannabinoids on HIV infection have been reported. However, the beneficial and deleterious interaction of different drugs of abuse with brain resident cells, such as microglia, and the mechanisms of neuronal injury by different drugs of abuse have not been clearly elucidated yet. Further, despite the ability of ART to inhibit HIV, neuro-AIDS continues to persist and is exacerbated by drugs of abuse. This symposium will present new experimental and clinical evidence showing that several drugs of abuse alter HIV infection. In addition, the talks will attempt to further delineate the mechanisms of interaction between various abused substances and immune and CNS cells with respect to HIV infection, and to present novel methods to treat neuro-AIDS.

Monday, June 11

III. Exercise as a treatment for drug dependence in humans Chairs: Richard De La Garza, II and Dace Svikis

The clinical, psychosocial and economic costs of drug dependence affirm the pressing need for broadly effective treatments. While pharmacotherapy trials have identified several treatments for nicotine and alcohol dependence, not a single medication has been found to reliably reduce cocaine or methamphetamine use. For these stimulants, behavioral interventions (e.g., CBT) have been moderately effective, but there is clearly room for improvement. Both animal and human studies suggest moderate physical exercise may have therapeutic benefits in addiction treatment. Human studies have shown exercise attenuates cravings for cigarettes and rodent research shows that wheel running reduces cocaine self-administration. Until recently, the effects of exercise on cocaine and other drug use in humans has received little attention. This symposium brings together 5 multidisciplinary research teams spearheading clinical research on exercise and drug use/dependence.

IV. Novel methods for assessing the prevalence of drug use and drug-related harms in large populations and large-scale responses

Chairs: Alison Ritter and Jason White

This symposium will discuss novel methods of assessing the prevalence of drug use and drug harms related to drug use in Australia and explore responses to these harms. Topics will include use of waste water analysis of substance use residues as a novel method to measure patterns of substance use across a population; consumption patterns of stimulants (MDMA, methamphetamine and cocaine) and opioids; record linkage of a prospective injection drug user cohort in Melbourne, Australia to emergency department and hospital inpatient records as a method of assessing drug related harms. There will be a presentation on the Drug & Alcohol Clinical Care Package Program, an Australian government-funded population planning model developed to predict the required resources to meet population needs for substance use treatment across Australia including all treatment and drug types.

V. Do we undertreat the most prevalent form of substance abuse among pregnant women?

Chairs: Stephen T. Higgins and Jack Henningfield

Smoking during pregnancy is the leading preventable cause of poor pregnancy outcomes in the U.S. and other developed countries. In studies comparing the adverse effects of different substances on birth outcomes, tobacco's effects generally equal or exceed those of other substances and are more prevalent. While efficacious interventions for pregnant smokers are available, quit rates are low (< 15%) and there is broad consensus regarding the need for more effective interventions. Interestingly, the treatments recommended for pregnant smokers generally are much less intensive than those offered to pregnant abusers of other substances. In most U.S. states, recommended care for pregnant

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smokers is a referral to a tobacco quit-line wherein they receive brief telephone counseling sessions across antepartum and postpartum periods plus a self-help booklet at a total cost of several hundred dollars/patient. By contrast, recommended care for pregnant abusers of opioids is typically daily opioid replacement therapy plus weekly counseling and urine toxicology testing with total costs being many thousands of dollars/patient. If smoking during pregnancy was effectively managed with this lower intensity approach, such differences would be understandable, but that is not the case. We will explore this overarching question of whether we are undertreating this most prevalent and highly toxic form of maternal substance abuse at great cost to the health of many millions of children and to the U.S. healthcare system. The expert panelists will provide informed insights into this current and costly problem that are likely to be of interest to many CPDD attendees.

VI. Culturally tailored treatments for racial/ethnic minority substance users Chairs: Carmen L. Masson and Kathy Burlew

Racial/ethnic minorities are at increased risk for substance abuse. However, relatively few studies have addressed the efficacy or effectiveness of substance abuse treatments tailored for racial/ethnic minorities. Existing interventions fail to consider the unique cultural and contextual factors that may moderate substance abuse treatment outcomes among racial/ethnic minorities. Reducing health disparities among racial/ethnic minorities in the U.S. has become an increasingly visible public policy goal. This minisymposium, organized jointly by the CPDD Underrepresented Populations Committee and NIDA Clinical Trials Network Minority Interest Group, aims to present the findings of three culturally tailored interventions for substance abusing racial/ethnic minority populations. Findings from feasibility studies examining a 12-week group intervention to prevent substance abuse among African-American individuals transitioning from incarceration to low-income communities, and from a drum therapy based on indigenous cultural practices of American Indians/Alaska Natives for those with substance use disorders will be presented, as well as data from a pilot study evaluating a culturally adapted version of the Real Men Are Safe intervention for racial/ethnic minority men.

Tuesday, June 12

VII. Deaths during and after opioid treatment: Results from studies in the U.S., the U.K., the E.U., and Australia
Chairs: Petra Jacobs and Walter Ling

Opioid addiction treatment (OAT) has involved three pharmacotherapies: methadone, buprenorphine, and naltrexone. These medications have been examined for several decades in research, and lessons have been gained from clinical practice using these medications to treat opioid addiction. Reductions in overdose deaths and all-cause mortality among patients in OAT have been documented as direct benefits of pharmacotherapy. Overall mortality of patients treated with these medications has increased recently, however, attributable at least in part to the interplay of increased use of OST with factors such as co-occurring use of other medications acting on the central

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nervous system and increased prescribing of opioid agonist medications to treat pain. Data from existing clinical and EMR databases were analyzed, revealing several protective and risk factors of overdose/mortality related to OST with opioid agonists and antagonists. Evidence from the U.K., E.U. countries, and Australia suggest an increased mortality rate at the start of OST before patients are stabilized on the treatment regimen. Evidence from the same cohorts suggests an elevated risk of death in the first month after initiating treatment, especially when OST is prematurely terminated. Each medication has special issues that clinicians, patients, treatment system personnel, and policymakers need to understand in order to reduce the level of mortality related to OST and occurring after OST cessation. This session will briefly discuss the underlying mechanism of opioid agonists' actions in the central nervous system in relation to the development of opioid tolerance and overdose, and the mechanism of antagonist-based OST that may result in overdose after treatment. Furthermore, U.S., U.K., and Australian researchers will present their findings on potential risks of OST and associated influences on mortality given the variety of different addiction treatment systems and policies. Presenters will discuss how changes in clinicians' training as well as changes in OST guidelines might reduce the risk of overdose and all-cause mortality among patients in OST. Additional material will be presented on the associations between overdose deaths and opioid regimen (dose and schedule) in VA patients receiving opioid medications for pain.

VIII. Recent advances in medications development for the treatment of substance use disorders

Chair: David McCann

Medications can play an important role in the treatment of substance use disorders; however, there are many areas of unmet clinical need. For example, currently available medications for alcohol and tobacco dependence are more likely to lead to failed quit attempts than treatment success (i.e., a minority of patients are "responders") and there are no FDA-approved medications for the treatment of cocaine or methamphetamine dependence. Historically, the pharmaceutical industry has initiated very few discovery and development programs for medications specifically aimed at substance use disorder indications. The purpose of this symposium is to provide CPDD meeting attendees with information on four such ongoing programs: the orexin-1 receptor antagonist program at Actelion; the kappa-opioid receptor antagonist program at Lilly; the second-generation GABA aminotransferase inhibitor program at Catalyst; and the TV-1380 (cocaine-metabolizing enzyme) program at Teva. The discussant will summarize NIDA efforts to stimulate pharmaceutical company involvement in this area of research, providing backstories for the above projects as examples.

Wednesday, June 13

IX. Rats at risk? Identifying traits associated with addiction Chairs: Marilyn E. Carroll and Jonathan Gewirtz

Susceptibility to addiction, like other psychiatric disorders, differs between individuals but shows substantial heritability. However, little is known of the factors, or "endophenotypes", that intervene along the pathway from specific genotypes to manifestation of the disorder. Characterizing these factors is important for identifying and targeting vulnerable individuals for early intervention, for understanding neural mechanisms, and developing effective treatments. Using animal models is critical for this purpose; this symposium will review key traits, identified in rats, that are strongly associated with drug abuse. Topics include novel measures of impulsivity and how it relates to compulsive cocaine self-administration; rats that are selectively bred to consume high or low amounts of a sweetened substance, and how this trait relates to drug-seeking and impulsive behavior; selectively bred rats that are high- and low- novelty responders, how they differ on traits related to addiction such as impulsivity, incentive motivation, and reinstatement, and their as a model of sensation seeking, a trait associated with drug abuse in humans. Related neurobiological evidence will be presented regarding all of these behaviors, and speakers will discuss implications for preventive interventions that translate to humans. The discussion will focus on whether these factors are isolated traits that contribute independently to addiction, or whether they are highly associated and overlap with one another. This approach will help identify, through animal models, genes and neural mechanisms that confer vulnerability to addiction.

X. The next step in neuroimaging research into executive functioning in substance dependence: Underlying mechanisms and clinical implications

Chairs: Ingmar Franken and Murat Yucel

For decades, researchers have reported executive function (EF) deficits in substance use dependence (SUD) patients. However, many unresolved questions remain, such as the question of the role of craving in EF, the important issue of causality and the role of neurotransmitters like dopamine. These questions will be discussed in this symposium with a focus on neuroimaging data. The notion that craving is a primary trigger of disrupted EF and consequent substance use will be challenged and the question of EF deficits as premorbid vulnerabilities or as a consequence from addiction-related neuroadaptations will be discussed. Then there will be a discussion of the role of dopamine in EF deficits as recent research shows that disturbed dopaminergic functioning is associated with EF deficits in SUD patients. Overall, the mini-symposium will encompass the latest developments of research into executive functioning in contemporary addiction research.

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XI. *Drug effects in the developing adolescent brain* Chairs: Bertha K. Madras and Yasmin L. Hurd

It is well accepted that repeated exposure to drugs can shape neuroadaptation in cell biology and neuronal circuits, particularly in brain centers regulating natural reward, memory, volitional and motivational control. These changes are implicated in drugseeking behavior, addiction and relapse. Little research has focused on whether drugs alter neurodevelopmental processes or neuroadaptation differently in the adolescent brain, even though the prevalence of addiction to alcohol, nicotine, cocaine, amphetamine(s), marijuana, is higher for adults who initiated drug use during early adolescence. A number of factors may contribute to adolescent susceptibility to addiction, (e.g., innate differences, predisposing factors such as psychiatric co-morbidity, longer duration of exposure with earlier initiation). Conceivably, drugs can alter the developing adolescent brain uniquely, compared with the adult brain.

XII. Is abstinence the only meaningful endpoint? Results from secondary analyses of cocaine treatment studies

Chairs: Geetha Subramaniam and George E. Woody

The FDA has considered abstinence from substances for at least 3 months as the primary efficacy endpoint in substance abuse treatment medication studies. FDA's recent decision to accept percent of subjects with no heavy drinking days as an acceptable endpoint was based on the demonstration that this could be linked to meaningful outcomes in alcohol medication trials. This Mini-Symposium consists of three presentations of secondary analyses of NIDA-funded cocaine treatment trials to determine whether reductions in cocaine use are associated with meaningful clinical outcomes: 1) The multicenter NIDA Cocaine Collaborative Study (n=487) comparing 4 psychosocial treatments to determine a) associations between reduced use and improvements on functional outcomes (e.g., social, psychiatric, legal and medical measures) compared to those who failed to substantially reduce use, and b) the degree of reductions in use that is needed to achieve meaningful outcomes; 2) 7 independent, randomized controlled treatment trials for cocaine dependence data (n=682) using a common meditational strategy to test whether specific treatments (behavioral, medications or combination) effect clinically meaningful outcomes, either directly or through the mediating effect of reduced cocaine use; 3) analyses of the Global Appraisal of Individual Needs data (n=644) from the Early Re-Intervention experiment where changes in days of cocaine use at 3 and 6 months were correlated with 14 functional and risk outcomes, showing that reductions in cocaine use are associated with differences in each of these outcome measures.

Thursday, June 14

XIII. From bench to bedside: Can neurobiological findings be used to improve treatment outcomes in marijuana-using youth?

Chairs: Krista M. Lisdahl and Alan J. Budney

Many adolescent Marijuana (MJ) users show poor response to evidence-based treatments. The current symposium brings together neuroscience findings and clinical studies in young MJ users. The first study characterizes stage of change and dependence symptoms in smokers with and without concurrent MJ use. Findings highlight the need to treat both substances while assessing cognitions for each separately. The second study suggests that chronic MJ use is associated with alterations in PFC cortical architecture differentially for male and female emerging adults while the third talk demonstrates that early age of MJuse onset is associated with abnormal fMRI response to cognitive control tasks. The final studies link brain function to treatment outcomes in MJ-using youth. One found that high delay discounting (DD) teens showed less fMRI activity than low DD teens in an executive control network but greater "bottom up" frontolimbic reward network activation during a DD fMRI task. The other found that carriers of the low risk 5HT2A C allele had greater brain activation in executive-control and contemplative areas of the brain during a change talk condition compared to the risk allele (T) carriers, suggesting a protective nature of the C/C genotype in treatment response. Taken together, these findings support the use of executive functioning and high magnitude contingency management interventions, especially in at-risk groups such as those demonstrating executive dysfunction, genetic vulnerability, or high DD teens. Discussion will highlight opportunities and challenges in integrating clinical neuroscience and treatment outcome studies in adolescent and emerging adult MJ-users.

XIV. Extending the data on XR-NTX in opioid dependence: Infectious disease, health professionals, justice systems and cost

Chairs: Edward V. Nunes and Joshua D. Lee

NIDA called for an extended-release naltrexone (XR-NTX) formulation in 1976. In 2010, the FDA approved XR-NTX for the prevention of relapse to opioid dependence following detoxification. In the pivotal Phase 3 trial of chronic opioid-dependent patients (N=250), XR-NTX patients had more confirmed abstinence during weeks 5-24 than placebo patients: median abstinent weeks = XR-NTX 90% vs. Placebo 35%. Efficacy was also demonstrated in the subsample of HIV+ patients (XR-NTX: 90% opioid negative urines vs. placebo: 22.5%; P<0.01). There were no significant treatment interactions with age, gender, duration of dependence or detoxification. A small, open-label trial of XT-NTX among health professionals (N=40) showed craving reduction and >75% retention at one year. An open-label, case-matched control study among repeat drug court offenders found a 69% reduction in annualized re-arrest rates (N=64; 8% XR-NTX vs. 26% for treatment as usual; p<0.05). Preliminary data from NYC's Rikers Island re-entry and post-release parolees (5-sites) will also be summarized. Retrospective claims analyses of commercially insured patients (samples >10,000) examined the costs and cost

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effectiveness of XR-NTX in three studies of alcohol dependence and one study of opioid dependence. In all four studies, case-mix adjusted total healthcare costs were greater for patients who received only psychosocial treatment as compared with patients who received any addiction pharmacotherapy. Among patients treated with pharmacotherapies, total costs for XR-NTX patients were not different from costs of patients prescribed oral agents. XT-NTX patients did have significantly fewer hospitalizations than all other groups. In summary, findings indicate that extended release naltrexone may play a cost-effective role in the treatment of opioid and alcohol dependence.

XV. Abuse of buprenorphine and buprenorphine and naloxone: The emerging epidemic and what you can do about it

Chairs: John Mendelson and Marc Auriacombe

Buprenorphine has revolutionized the treatment of opiate addiction throughout the world. In most countries buprenorphine is co-formulated with naloxone to attenuate abuse liability. However, in some countries buprenorphine-naloxone formulations are not available; in these locales buprenorphine or methadone is used for substitution therapy. In the U.S., a lower cost generic buprenorphine without naloxone was recently introduced and is now widely prescribed. Abuse of this formulation of buprenorphine appears to be growing. This symposium will examine the evidence for emerging worldwide abuse of buprenorphine and the role of buprenorphine-naloxone combinations in attenuating abuse. Presentations will include epidemiologic data obtained through the RADARS system, the European experience with buprenorphine and methadone and how to combine evidence based medicine with safety concerns, human pharmacology laboratory evidence that naloxone substantially attenuates buprenorphine abuse liability, and methods to decrease abuse of buprenorphine and improve prescribing of buprenorphine and naloxone. A discussant will review possible responses of the academic community.

XVI. Sleep disturbance in abstinence: Unifying themes and treatment implications for alcohol, cannabis, cocaine and opiate dependence

Chairs: Peter Morgan and Kirk J. Brower

Acute effects of addictive substances on sleep have long been recognized, often with rebound effects in early withdrawal. Traditionally, treatment of these withdrawal effects has been limited or denied, based on the perception that doing so might be more harmful than beneficial, and because such effects were perceived to be both temporary and accepted as 'symptoms' of withdrawal. More recently, however, persistent sleep disturbances related to chronic use have been observed during abstinence and across broad classes of addictive substances. These findings implicate a disruption of sleep processes as an integral part of the physiological changes related to chronic use that may contribute to ongoing use and relapse. This symposium will discuss evidence for impaired homeostatic sleep drive and dysregulated circadian rhythm in alcohol dependence, presenting data documenting their severity and treatment implications; data from a series of studies of cannabis abstinence and sleep quality in dependent individuals,

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describing sleep architectural changes that may be amenable to treatment; polysomnographic sleep findings in methadone-maintained patients; sleep architectural changes associated with abstinence from long-term cocaine use. The unifying themes in substance-related sleep disruptions and their implications for treatment and study will be discussed.

Sunday, June 10

I. *Epidemiology and public health research methods*Chairs: James Anthony and Silvia S. Martins

This workshop will present the following topics:

- 1. Basic Time to Event Models on Tobacco Smoking Persistence;
- 2. Generalized Growth Mixture Models in Addictive Behaviors Research;
- 3. Count Regression Models for Novel NIDA 'Process Phenotypes';
- 4. Propensity Score Models in NIDA Etiology Research;
- 5. Methods Challenges in Internet Surveys of Minority Participants.
- II. What's new at NIDA and NIH: Peer review and other policies that affect applicants
  Chairs: Mark Swieter and Teri Levitin

This workshop is intended to provide an opportunity for participants to learn about new policies and procedures at NIH and NIDA that are relevant to them. Topics will include changes in the peer review process at NIDA and the Center for Scientific Review (CSR), and tips on grants to help you with your application. Other topics and questions of interest to the audience will be addressed. This is very much an interactive, audience-directed activity.

III. Technology-based interventions for the prevention and treatment of substance use disorders: Development, evaluation and potential public health impact Chair: Lisa A. Marsch

Technology (computers, web, mobile devices) offers the potential to play a critical role in improving the effectiveness, cost-effectiveness and reach of efforts to assess, prevent, and treat substance misuse and other risk behavior. Using technology to deliver evidence-based interventions allows for these complex activities to be implemented with fidelity and at low cost, without increasing demands on time or training needs of health care professionals. Technology-based therapeutic tools may function as important "clinician-extenders", which may enable more widespread dissemination of evidence-based care to broader audiences in a wide array of settings than what is possible with traditional models alone. This workshop will highlight several lines of research focused on the development and experimental evaluation of technology-based assessments and interventions targeting substance use disorders and related issues. Empirical findings will be presented from various NIDA-supported, prevention- and treatment-related clinical trials. Strategies for the design, development, and clinical and economic evaluation of technology-based therapeutic tools will be addressed. Finally, the potential public health and policy implications of this work in the behavioral health care arena will be discussed.

IV. Assessment of abuse-deterrent and tamper-resistant technologies:

From the bench-top to the users

Chairs: Kerri A. Schoedel and Marta Sokolowska

Abuse and misuse of prescription pharmaceuticals now rivals that of illicit drug abuse. Formulation tampering enables abusers to administer higher doses by unintended routes. New approaches are being developed to incorporate abuse- and tamper-deterrent features to higher risk products. While most of these formulations are likely to alter drug users' behaviors towards decreased public health risk, consensus on the appropriate methodology needed to assess the impact of these technologies, both pre- and postmarket, has remained elusive. These assessments must take into consideration the specific chemical, physical and pharmacological nature of the product, as well as the intended and unintended routes of administration. In vitro assessment of these formulations is an important component in gaining regulatory approval. In vitro or conceptual properties of novel products must also translate into humans, typically in controlled clinical studies. Although there remain barriers to acquisition and analysis of post-market data, these vital components are required to confirm that laboratory/premarket data are predictive of impact on actual abuse. Confirmation of the reduced public health risk may require large nationally sponsored studies; however, the development of abuse/tamper deterrent products needs continuing regulatory and industry support so that these products become available for certain drug classes. Therefore, the objectives of this session are to: a) describe current and new approaches for assessing abuse deterrence, from in vitro to clinical and epidemiological studies; b) understand the regulatory framework and acceptability of these assessments; c) understand how these data predict 'real-world' drug abuse, including limitations and strengths of various approaches.

Monday, June 11

V. Career development: A perspective from junior and senior researchers Chairs: Gerald McLaughlin, Scott Chen, and Minna Liang

The Career Development workshop offers an opportunity to hear from relatively junior and senior scientists about their career choices and experiences. In addition to interesting career path descriptions, topics may include mentor/mentees, networking, advantages of academia, industry or government positions, and job interview guides. Half of the time will be allotted for presentations by speakers with a spectrum of backgrounds, while the remaining time is available for audience discussion/questions.

VI. 18<sup>th</sup> Annual Contingency Management Working Group Chairs: Kelly E. Dunn and Kathryn Saulsgiver

The Contingency Management (CM) Working Group, held annually during the CPDD convention, is an opportunity for the dissemination and discussion of current research regarding the use of CM interventions to promote behavior change and reduce drug use. CM is a behavioral treatment strategy that has demonstrated consistent success in promoting abstinence from a wide range of drugs and across many different treatment populations. It is also being used to promote change in behaviors impacting the course of

other chronic diseases (e.g., obesity, diabetes). At the 17th Annual Meeting of the CM Working Group, junior and senior researchers will present preliminary data from ongoing studies involving CM. The goal for this working group is to provide an informal outlet for discussion of ongoing CM research, with an emphasis on developing or improving research strategies by seeking audience input, and providing opportunities for junior and senior researchers to interact. Topics will be chosen to capture the most current data in contingency management for presentation at our annual working group.

VII. Non-medical prescription drug use among ED and trauma patients Chairs: Amy S.B. Bohnert and Lauren Whiteside

The prevalence of alcohol and illegal drug use and problems related to the use of these substances are elevated among individuals seen in Emergency Departments (EDs) and trauma services. Additionally, the inner city ED serves as the sole source of medical care for many individuals with lower socioeconomic status. Consequently, many screenings, brief interventions, and referrals to treatment protocols to reduce drug and alcohol use occur during trauma care. However, there is little documentation of the extent of non-medical prescription drug use among patients presenting for trauma care, despite the substantial role of EDs in the distribution of prescription drugs, particularly opioid pain medications. This lack of data may be due in part to the difficulty in differentiating non-medical from medical use. The primary purpose of the workshop is to present data on non-medical prescription drug use among ED/trauma patients and to discuss implications of these data for brief interventions.

VIII. NIDA medication development workshop. Early drug development:

Predicting and assessing safety

Chair: Jane B. Acri

The workshop will focus on how new molecular entities with demonstrated efficacy in animal models relevant to stimulant abuse are advanced at NIDA, and will provide guidance for chemists and pharmacologists working in the drug abuse field on safety testing needed to determine whether a compound can become a medication development candidate. Our goals are to inform our chemist and pharmacologist colleagues in the drug abuse field on the essential steps that determine whether a compound showing promise in animal models of efficacy is actually developable as a medication, and how NIDA resources can facilitate the process. The significance lies in the continued need to develop medications for stimulant abuse, as there are still no FDA-approved medications for related indications.

NIDA International Research Poster Session Chair: Steven W. Gust

This workshop will be similar to the ones conducted previously by the National Institute on Drug Abuse (NIDA) International Program, consisting of a poster session presenting drug abuse research being conducted outside of the United States. The primary goal is to provide a venue for CPDD members to meet, exchange ideas, and explore areas of

mutual scientific interest with potential collaborators from other countries. Approximately 150 investigators will present research projects from around the globe. 2wForging new collaborations between U.S. and foreign investigators is one of the primary goals of the NIDA International Program.

Tuesday, June 12

IX. What's new in NIDA's National Drug Abuse Treatment Clinical Trials Network?

Findings and observations from recent trials

Chairs: David Liu and Udi Ghitza

This workshop will explore examples of the National Drug Abuse Treatment Clinical Trials Network's (CTN) recent research initiatives in the treatment of substance use disorders, with a focus on stimulant users. The presentations will include data from a clinical trial in the stimulant abuse population that evaluated the impact of a 12-Step facilitative intervention (STAGE-12) on substance use related outcomes, and insights from two additional trials with a high percentage of stimulant users in their respective participant populations. The first of these two studies is evaluating the comparative effectiveness of treatment as usual with and without an interactive, web-based version of the Community Reinforcement Approach intervention plus incentives in the general substance abuse population, including those entering treatment for stimulant abuse. The second study is a completed trial conducted in opioid treatment programs with participants receiving either methadone or buprenorphine/naloxone treatment. The presentation will describe an analysis of the effects of cocaine use on quality of life measures in this trial. The data from these large multisite trials will provide insight into this complex population, illustrate approaches to the treatment of stimulant abuse, and shed light on how stimulant use impacts quality of life and substance use disorder treatment outcomes. Specific aims for participation in this workshop are to apprise the SUD research and treatment community of recent and ongoing CTN research in the stimulant use population, and to present data and analyses from selected CTN trials.

X. FDA's Center for Tobacco Products: Overview and research priorities Chairs: Lucinda Miner and Cathy L. Backinger

With the passage of the Family Smoking Prevention and Tobacco Control Act in 2009, FDA was given authority to regulate the manufacture, distribution, and marketing of tobacco products. FDA established the Center for Tobacco Products (CTP) in August, 2009 to implement this new regulatory authority to reduce tobacco-related illness and death nationwide. Since its inception, the Center has recognized the importance of strengthening the existing science base to support the regulation of tobacco products. CTP's Office of Science is working to implement a focused research agenda to meet its regulatory science needs and to evaluate population and public health impact. This workshop will provide an overview of the Tobacco Control Act and highlight some of the activities of the CTP, including the new Population Assessment of Tobacco and Health (PATH) study, a national longitudinal, cohort study in collaboration with NIH; graphic health warnings for cigarette packages; and the Tobacco Products Scientific Advisory

Committee (TPSAC). Discussion will include information on how FDA communicates with the research community and how the research community can communicate with the FDA. In addition, the presenters will discuss research priorities and funding plans, discuss identified gap areas where more research is needed to help inform tobacco regulation, and the mechanisms that FDA can use to support needed research.

XI. Trauma-informed care for adolescents with co-occurring trauma and substance use disorders: Interventions and recent outcomes with diverse adolescents

Chairs: Janet C. Titus and Michael L. Dennis

In many cases, a substance use disorder goes hand-in-hand with a history of trauma. Despite this fact, co-occurring trauma and substance abuse among adolescents is not typically treated in an integrated fashion in either the substance abuse or mental health services arenas. During the past few years, several notable efforts have been underway to integrate treatment of co-occurring trauma and substance abuse among adolescents. This workshop will focus on the interventions and outcomes of several trauma-informed substance abuse treatment programs serving diverse adolescents. At the end of the session, a brief business meeting of SASATE membership will be held.

XII. *Mobile health treatment interventions* Chairs: Karran A. Phillips and Brent A. Moore

Implementation of empirically supported interventions in addiction treatment settings are needed to improve treatment retention and outcomes. Increasing demands on health professionals' time coupled with increasing need for interventions for prescription opioid drug abuse pose a critical problem for many health care clinics. One potential solution is the use of automated-mobile interventions (mHealth). These computer-based technologies, accessible from a variety of platforms such as phones, tablets, and computers, offer a number of advantages over traditional face-to-face counseling, including low cost, consistent delivery and increased convenience for patients, all of which should lead to greater and more frequent patient engagement. In addition, such systems can increase the accessibility and range of interventions available to rural or remote settings. In this workshop we will describe several mHealth projects including an automated telephone-based interactive voice response (IVR) system to deliver cognitive behavioral skills to patients in methadone maintenance and office-based buprenorphine treatment; a telephone-based alcohol screening and brief intervention (SBI) project; a Smartphone-delivered educational and treatment intervention in opioid-dependent populations; and a Smartphone relapse prevention intervention. Our specific aims are to 1) provide a framework for developing and evaluating mHealth technologies, and 2) describe specific ongoing mHealth projects and provide preliminary implementation data.

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