CPDD 79th Annual Scientific Meeting Program

June 17-22, 2017
HÔTEL BONAVENTURE
Montréal, Canada

Montreal
BOARD OF DIRECTORS

Leonard Howell, PhD, President
Sandra D. Comer, PhD, Past-President
Alan J. Budney, PhD, President-Elect
Linda B. Cottler, PhD, MPH, Treasurer
Patrick M. Beardsley, PhD
Jack Bergman, PhD
Kathleen M. Carroll, PhD
Marilyn E. Carroll, PhD
Howard D. Chilcoat, ScD
Timothy P. Condon, PhD

Toby K. Eisenstein, PhD
Margaret Haney, PhD
Sarah H. Heil, PhD
Marc J. Kaufman, PhD
Charles O’Keeffe, MBA
Thomas E. Prisinzano, PhD
Beatriz Rocha, MD, PhD
William Stoops, PhD
Jennifer Tidey, PhD
Elise Weerts, PhD

EXECUTIVE OFFICER

Loretta P. Finnegan, MD

DIRECTOR, EXECUTIVE OFFICE

Ellen B. Geller, MA

SCIENTIFIC PROGRAM COMMITTEE

William W. Stoops, PhD, Chair
Elise Weerts, PhD, Past Chair
   Kelly Dunn, PhD
   Michael Bardo, PhD
   Ziva Cooper, PhD
Matthew W. Johnson, PhD
R. Kathryn McHugh, PhD
Howard D. Chilcoat, ScD
Danielle E. Ramo, PhD
Teresa Franklin, PhD
Sterling McPherson, PhD
Kevin B. Freeman, PhD
Loretta P. Finnegan, MD, ex officio
Ellen B. Geller, MA, ex officio
PRE-MEETING SATELLITES

10th Annual International Women’s and Children’s Health and Gender Group Conference
Chaired by Wendee Wechsberg
Friday, June 16, 2017
Fontaine A&B
9:00 AM – 5:30 PM

The 2017 NIDA International Forum: Building International Collaborative Research on Drug Abuse

- NIDA – Drug Flows Research Consortium
  Friday, June 16, 2017
  Montreal Ballroom – Verdun
  1:45 PM – 3:45 PM

- NIDA-Special Issues Group Meeting
  Friday, June 16, 2017
  Montreal Ballroom-Mont-Royal
  3:00 PM – 5:00 PM

- NIDA-ISAJE Workshop & NIDA International Networking Session
  Friday, June 16, 2017
  Montreal Ballroom – Lachine/Lasalle
  4:00 PM – 8:00 PM

- NIDA International Plenary
  Saturday, June 17, 2017
  Montreal Ballroom – Westmount&Outremont
  8:30 AM – 4:45 PM

The International Study Group Investigating Drugs as Reinforcers (ISGIDAR)
Chaired by Mark Smith
Saturday, June 17, 2017
Montreal Ballroom – Verdun
8:00 AM – 5:00 PM
Saturday, June 17, 2017

REGISTRATION
Bottom of escalator
1:00 - 5:30 PM

NIDA GRANT-WRITING
(Pre-Registrants Only)
Fontaine A & B
1:00 - 5:30 PM

OPENING RECEPTION
Salon Bonaventure & Ville-Marie
7:00 - 9:00 PM

Sunday, June 18, 2017

Plenary Program
Montreal Ballroom
8:30 - 11:30 AM

8:30 Welcome
CPDD President Leonard Howell

8:40 Report from the National Institute on Drug Abuse: Drug Abuse and Addiction Research: Progress, Priorities and Challenges
Nora D. Volkow, Director, NIDA

9:10 Report from the National Institute on Alcohol Abuse and Alcoholism: NIAAA Update: Priorities Going Forward
George F. Koob, Director, NIAAA

9:40 Presentation of the Stephen G. Holtzman Travel Award for Preclinical Investigators to Jibran Y. Khokhar
Introduction by Alan Budney

9:50 Presentation of the CPDD/NIDA Media Award to Sam Quinones
Introduction by Meg Chisolm

10:05 Presentation of the Joseph Cochin Young Investigator Award to Matthew Banks
Introduction by Steve Negus

10:15 Presentation of the Mentorship Award to Stephen T. Higgins
Introduction by Alan J. Budney

10:25 Presentation of the Nathan B. Eddy Award to Walter Ling
Introduction by Peggy Compton

10:40 Nathan B. Eddy Lecture: Accidents and Angels: The Man Who Got His Life Philosophy from a Bottle Cap
Walter Ling, UCLA
Sunday, June 18, 2017

CPDD Early Career Travel Awards Luncheon
(By Invitation Only)

Salon Ville-Marie
11:30 - 1:00 PM

President’s Symposium
Westmount/Outremont
1:00 - 2:30 PM

ENHANCING RESEARCH ON CONTROLLED SUBSTANCES

1:00  Introduction
Leonard Howell, President of CPDD

1:05  Public Policy Officer of CPDD
William Dewey

1:10  Perspective from NIDA
Susan Weiss, Director of the Division of Extramural Research, NIDA, NIH, Rockville, MD

1:15  Perspective from FDA
Dominic Chiapperino, Lead Chemist, FDA, Silver Spring, MD

1:20  Perspective from DEA
Terrence Boos, Deputy Section Chief, DEA, Springfield, VA

1:25  Perspective from a researcher
Martin W. Adler, Center for Substance Abuse Research, Lewis Katz School of Medicine at Temple University, Philadelphia, PA

1:30  Questions and comments from audience

Oral Communications 1
Mont-Royal
2:45 - 4:45 PM

DISPARITÉS EN MATIÈRE DE SANTÉ:
HEALTH DISPARITIES

Chairs: Qiana Brown and Anna Pagano

2:45  The use of the Black Church to improve treatment access for Blacks with SUD
A. Jordan, Yale University, New Haven, CT

3:00  Exploring factors related to uptake of oral pre-exposure prophylaxis among Black women with substance use problems
Keosha Bond¹, Alana Gunn², Porche Williams³, ¹NYU Rory Meyers College of Nursing, New York, NY, ²Binghamton University, Binghamton, NY, ³National Development and Research Institute, Inc., New York, NY

3:15  Model minorities? Asian-American trauma and drug use
Tanya Saraiya¹, Denise Hien², Aimee Campbell³, ¹TRACC Program, Brooklyn, NY, ²Adelphi University, Garden City, NY, ³Columbia University and NYSPI, New York, NY
Sunday, June 18, 2017

3:30  **Prenatal marijuana use, psychiatric comorbidity, and vulnerable populations in the U.S.**  
Qiana Brown¹, Aaron Sarvet², Deborah Hasin³, ¹Columbia University Mailman School of 
Public Health, Newark, NJ, ²Columbia University, New York, NY

3:45  **Cannabis motives and social anxiety: Effects of race and gender in cannabis use and problems among young adults**  
Dawn Foster¹, Ecker Anthony², Kraus Shane³, Stephanie O'Malley⁴, Kristin Dukes⁵, 
Gretchen Blycker⁶, Carolyn Sartor⁴, ¹Yale University, New Haven, CT, ²Michael E. 
DeBakey Veterans Affairs Medical Center, Houston, TX, ³Edith Nourse Rogers Memorial 
Veterans Hospital, Bedford, MA, ⁴Yale School of Medicine, New Haven, CT, ⁵Simmons 
College, Boston, MA, ⁶University of Rhode Island, Kingston, RI

4:00  **Predictors of smoking behaviors among Latinos in substance abuse treatment**  
Anna Pagano¹, Noah Gubner², Thao Le³, Barbara Tajima¹, Joseph Guydish², ¹Prevention 
Research Center, Oakland, CA, ²UCSF, San Francisco, CA, ³UCSF, San Francisco, CA

4:15  **Cultural predictors of intimate partner violence perpetration and victimization in Latino emerging adults**  
Carolina Villamil Grest¹, Hortensia Amaro², Jennifer Unger¹, ¹University of Southern 
California, Los Angeles, CA, ²ISC School of Social Work, Los Angeles, CA

4:30  **Racial and ethnic disparities in opioid agonist treatment for opioid use disorder in a U.S. national sample**  
Noa Krawczyk¹, Kenneth Feder², Brendan Saloner², ¹Johns Hopkins Bloomberg School of 
Public Health, Department of Mental Health, Baltimore, MD, ²Johns Hopkins Bloomberg 
School of Public Health, Baltimore, MD

**Oral Communications 2**

2:45 - 4:45 PM

**THE ODD COUPLE: DRUG INTERACTIONS**

Chairs: Sally Huskinson and Emily Jutkiewicz

2:45  **Ethanol reversal of prescription opioid tolerance**  
Jacy Jacob¹, Hamid Akbarali¹, Graeme Henderson², William Dewey¹, ¹Virginia 
Commonwealth University, Richmond, VA, ²University of Bristol, Bristol, UK

3:00  **A sex comparison of morphine and delta-9-tetrahydrocannabinol interactions on inflammatory pain in rats**  
Stevie Britch¹, Carlie Knox¹, Jenny Wiley², Rebecca Craft¹, ¹Washington State 
University, Pullman, WA, ²RTI International, Research Triangle Park, NC

3:15  **Adolescent delta(9)-tetrahydrocannabinol exposure enhances sensitivity to the reinforcing effects of cocaine**  
Emily Jutkiewicz¹, Amy Friedman², ¹University of Michigan, Ann Arbor, 
MI, ²Wayne State University, Detroit, MI

3:30  **Abuse-related effects of mixtures of cocaine and caffeine in rats**  
Brenda Gannon¹, Kayla Galindo¹, Melson Mesmin¹, Kenner Rice², Gregory 
Collins³, ¹University of Texas Health Science Center at San Antonio, San Antonio, 
TX, ²NIH, NIDA, Rockville, MD, ³University of Texas Health Science Center, San 
Antonio, TX
Endorsing cannabis as drug of choice is associated with increased use of other illicit drugs: A longitudinal analysis
Jesse Hinckley¹, Christian Hopfer², Michael Stallings³, John Hewitt³, Susan Young¹, ¹University of Colorado School of Medicine, Department of Psychiatry, Aurora, CO, ²University of Colorado School of Medicine, Aurora, CO, ³University of Colorado, Denver, CO

Self-administration of benzodiazepine and cocaine combinations by monkeys in a choice procedure: Role of GABA-A receptor subtypes
Sally Huskinson¹, Kevin Freeman¹, James Rowlett¹, ¹University of Mississippi Medical Center, Jackson, MS

Cannabinoid modulation of the analgesic effects of opioids in humans
Shanna Babalonis¹, Michelle Lofwall², Paul Sloan¹, Paul Nuzzo¹, Laura Fanucchi¹, Sharon Walsh¹, ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Medicine, Lexington, KY

The influence of mentholation on usual brand and research cigarettes of varying nicotine content in vulnerable populations
Danielle Davis¹, Cecilia Bergeria¹, Joanna Streck², Janice Bunn¹, Diann Gaalema³, Sarah Heil¹, Stacey Sigmon¹, Maxine Stitzer¹, Jennifer Tidey⁵, Stephen Higgins¹, ¹University of Vermont, Burlington, VT, ²Vermont Center on Behavior and Health, Burlington, VT, ³University of Vermont UHC Campus, Burlington, VT, ⁵Johns Hopkins Bayview Medical Center, Baltimore, MD, ⁶Brown University School of Medicine, Providence, RI

Symposium I
Westmount
2:45 - 4:45 PM

WHAT IS THE ROLE OF SLEEP IN SUBSTANCE USE?
EVIDENCE FROM STUDIES OF CANNABIS, ALCOHOL AND OPIOID USE

Chairs: Patrick Finan and Brant Hasler

2:45 Mechanisms of sleep disturbance in individuals with opioid use disorder
P. Finan, Johns Hopkins University, Baltimore, MD

3:10 Sleep and circadian function in adolescents and young adults who use alcohol
B. Hasler, University of Pittsburgh, Pittsburgh, PA

3:35 Subjective and objective assessment of sleep in treatment-seeking cannabis users
D. Lee, Johns Hopkins Medicine, Lexington, KY

4:00 Sleep and substance use: Effects at varying frequencies of use among cannabis and alcohol users
D. Conroy, University of Michigan, Ann Arbor, MI

4:25 DISCUSSANT: Methodological considerations in sleep research among individuals with substance use disorder
P. Morgan, Yale School of Medicine, New Haven, CT
Symposium II  

TRANSLATIONAL APPROACHES TO UNCOVERING THE MECHANISMS UNDERLYING NEONATAL ABSTINENCE SYNDROME

Chairs: Lisa Brents and Jessica Coker

2:45  *The impact of antenatal buprenorphine use on fetal neurobehavioral profile, obstetrical course, and neonatal outcome*
J. Coker, University of Arkansas for Medical Sciences, Little Rock, AR

3:10  *The genetics and epigenetics of neonatal abstinence syndrome*
D. Nielsen, Baylor College of Medicine, Houston, TX

3:35  *Opioid addiction treatments during pregnancy and their potential effects on glial cell development and brain myelination*
C. Sato-Bigbee, Virginia Commonwealth University, Richmond, VA

4:00  *Preclinical modeling of opioid addiction during pregnancy using self-administration*
E. Byrne, Treatment Research Institute, Philadelphia, PA

4:25  *DISCUSSANT: Clinical and basic science partnerships: The key to future therapeutic breakthroughs in NAS research*
L. Brents, University of Arkansas for Medical Sciences, Little Rock, AR

Oral Communications 3

TRANSLATIONAL KAPPA-TILIZATION

Chairs: Drew Townsend and Thomas Prisinzano

5:00  *Development of salvinorin A-based kappa opioid receptor agonists for drug abuse therapy*
Rachel Crowley¹, Thomas Prisinzano², ¹University of Kansas, Lawrence, KS, ²University of Kansas School of Pharmacy, Lawrence, KS

5:15  *Analgesic effects of kappa opioid receptor agonist 16-ethynyl Salvinorin A in mice*
Kelly Paton¹, Samuel Williamson², Thomas Prisinzano³, Bronwyn Kivell¹, ¹Victoria University of Wellington, Wellington, New Zealand, New Zealand, ²University of Kansas, Department of Medicinal Chemistry, Lawrence, KS, ³University of Kansas School of Pharmacy, Lawrence, KS
5:30 Effects of nalbufafine on oxycodone reinforcement and thermal antinociception: Modeling a candidate abuse-deterrent opioid analgesic in male rats
Drew Townsend, Jennifer Naylor, S. Stevens Negus, Shelley Rae Edwards, Hina Qureshi, Hunter McLendon, Christopher McCurdy, Kennith Sufka, Kevin Freeman, University of Mississippi Medical Center, Jackson, MS, U.S. Food and Drug Administration, Silver Spring, MD, Virginia Commonwealth University, Richmond, VA, Millsaps College, Jackson, MS, University of Mississippi, Mississippi, MS

5:45 A randomized, double-blind, placebo-controlled study of the selective kappa opioid receptor antagonist, cerc 501, in a human laboratory model of smoking behavior
Jermaine Jones, Sandra Comer, Sharon Walsh, Shanna Babalonis, Brad Vince, Suky Martinez, Michelle Lofwall, Debra Kelsh, Eileen McNulty, Heather Fraser, Ronald Marcus, Columbia University College of Physicians and Surgeons, New York, NY, Columbia University and NYSPI, New York, NY, University of Kentucky, Lexington, KY, Vince and Associates, Malvern, PA, Columbia University Medical Center, New York State Psychiatric Institute, New York, NY, University of Kentucky College of Medicine, Lexington, KY, Cerecor, Inc., Baltimore, MD

Oral Communications 4
Mont-Royal
5:00 - 6:00 PM

FEEDING FRENZY: DIET AND DRUGS

Chairs: Amanda Price and Eric Strain

5:00 DREADD-induced activation of the insular cortex suppresses high fat food intake in a binge eating disorder paradigm
Amanda Price, Sonja Stutz, Noelle Anastasio, Kathryn Cunningham, University of Texas Medical Branch, Galveston, TX

The role of the serotonin 5-HT2C receptor in compulsive and addictive behaviors
Maylen Perez Diaz, Leonard Howell, Mark Wilson, Emory University, Atlanta, GA, Yerkes National Primate Research Center, Atlanta, GA

5:30 Escalated intake of palatable food in rats with intermittent, extended access is associated with high corticotropin-releasing factor mRNA neuronal density in the ventral tegmental area
Alison Kreisler, Candice Contet, Daniella Walter, Eric Zorrilla, The Scripps Research Institute, La Jolla, CA, Scripps Research Institute, La Jolla, CA

5:45 An exploration of the effect of acute morphine administration on taste acuity and feeding behavior
Denis Antoine, Eric Strain, Johns Hopkins University School of Medicine, Baltimore, MD
TECHNIQUES DE PSYCHOMÉTRIQUE

Chairs: Paul VanVeldhuisen and Lorra Garey

5:00 Test characteristics of a 4-item screening instrument for non-alcohol substance use disorders in trauma inpatients
David Gorelick¹, Zachary Dezman², Carl Soderstrom², ¹University of Maryland, College Park, MD, ²University of Maryland School of Medicine, Baltimore, MD

5:15 Smoking consequences questionnaire: A reevaluation of the psychometric properties across two independent samples of smokers
Lorra Garey¹, Kara Manning¹, Charles Jardin¹, Adam Leventhal², Matthew Stone², Amanda Raines³, Raina Pang², Clayton Neighbors¹, Norman Schmidt¹, Michael Zvolensky¹, ¹University of Houston, Houston, TX, ²University of Southern California, Los Angeles, CA, ³Florida State University, Tallahassee, FL

5:30 Concordance of tobacco, alcohol, prescription medications, and substance use tool for unhealthy substance use with timeline follow back
Paul VanVeldhuisen¹, Gaurav Sharma¹, Jennifer McNeely², Robert Schwartz³, Li-Tzy Wu⁴, Geetha Subramaniam⁵, Jacqueline King¹, Aimee Wahle¹, ¹The Emmes Corporation, Rockville, MD, ²New York University School of Medicine, New York, NY, ³Friends Research Institute, Baltimore, MD, ⁴Duke University School of Medicine, Durham, NC, ⁵NIDA, Bethesda, MD

5:45 Development of short, fixed forms of the IRT-based CAT versions of the seven ASI-MV® domains
Stacey McCaffrey¹, Stephen Butler¹, Ryan Black¹, ¹Inflexxion, Inc, Waltham, MA
Symposium III
Westmount
5:00 - 6:00 PM

DARK MINDS: NEURAL AND BIOBEHAVIORAL SUBSTRATES OF NEGATIVE AFFECT REGULATION IN ADDICTION

Chairs: Sarah Yip and Lora Cope

5:00  Stress and negative emotion regulation in youth: FMRI findings from substance and behavioral addictions
     S. Yip, Yale University, New Haven, CT

5:20  Neural responses to negative affective cues in relation to future cannabis-use, negative emotionality and binge-drinking
     J. Hardee, University of Michigan, Ann Arbor, MI

5:40  Cognitive and emotion regulation in early abstinence from cocaine: A potential target for medication development
     H. Fox, Stonybrook University, Department of Psychiatry, Stony Brook, NY

Workshop I
Westmount
7:00 - 9:00 PM

BIG DATA: ETHICAL CONSIDERATIONS IN HUMAN SUBJECT’S RESEARCH

Chairs: Jonathan Stoltman and H. Westley Clark

Can electronic health record data be meaningfully used for SUD research?
G. Bart, University of Minnesota, Minneapolis, MN

Ethical and privacy expectations of the participant and researcher: What does "Harm" look like in a big data context?
H. Clark, Public Health Program, Santa Clara University, Santa Clara, CA

Using EHR data for research in the context of a learning health care system: Challenges and opportunities
S. Sterling, Kaiser Permanente, Oakland, CA

Can mobile assessment have stable ethics?
W. Kowalczyk, NIH, Bethesda, MD
Sunday, June 18, 2017

Workshop II

USING BEHAVIORAL AND IMPLEMENTATION SCIENCE TO ACHIEVE AN AIDS-FREE GENERATION AMONG PEOPLE WHO USE DRUGS

Chairs: Wendee Wechsberg and Don Des Jarlais

Prospects for ending the HIV epidemic among people who inject drugs in Haiphong, Vietnam
D. Des Jarlais, Icahn School of Medicine at Mount Sinai, New York, NY

Adoption and sustainability in treatment of the Women's Health CoOp in South Africa: Real-world challenges in implementation science
W. Wechsberg, RTI International, Research Triangle Park, NC

Effects of marijuana use on neurobehavioral outcomes among persons living with HIV: Harmful or benign?
C. Meade, Duke University School of Medicine, Durham, NC

These genes don’t lie: Associations of recent methamphetamine use with gene expression in treated HIV infection
A. Carrico, University of Miami, Miami, FL

What did we hear and where does this lead us? – Followed by Q&A
M. Iguchi, RAND Corporation, Arlington, VA

Please be advised that no photographing of presentations or data is permitted. Badges must be worn at all times and are required for admission into all events and sessions.
ASSESSMENT OF ABUSE POTENTIAL IN CLINICAL TRIALS IN THE CONTEXT OF THE FINALIZED FDA GUIDANCE

Chairs: Jack Henningfield and Michael Klein

The process of documenting abuse-related signals from clinical trials
S. Calderon, U.S. Food and Drug Administration, Silver Spring, MD

Assessment of abuse potential in clinical trials to contribute to scheduling: Controlled substance act scheduling recommendations and abuse deterrent labeling introduction and issues
J. Henningfield, Pinney Associates, Bethesda, MD

Development of a standardized classification system for assessing abuse potential in clinical trials: ACTTION recommended considerations
S. Smith, University of Rochester School of Medicine and Dentistry, Rochester, NY

Development and feasibility of the misuse, abuse, and diversion drug event reporting system (MADDERS®)
N. Katz, Analgesic Solutions, Natick, MA

Assessing abuse potential from soup to nuts: Nonclinical and clinical study data that inform label claims and CSA scheduling recommendations
K. Bonson, U.S. Food and Drug Administration, Silver Spring, MD

Workshop IV

ANNUAL CPDD DESIGN AND ANALYSIS WORKSHOP

Chairs: Sterling McPherson and Susan Mikulich-Gilbertson

Using count regression models to evaluate important population level events in quasi-natural experiments: Marijuana legalization and prescription opioid reformulation examples
J. Davis, University of Colorado School of Medicine, Aurora, CO

Understanding health utilities and QALYS in substance use research
S. Murphy, Weill Cornell Medicine, New York, NY

Overview of pharmacokinetics and pharmacodynamics in substance use research: Estimating drug exposure and understanding drug/metabolite values
S. Mikulich-Gilbertson, University of Colorado School of Medicine, Aurora, CO

Population PK/PD: What data you need to collect and what you can do with existing substance use data?
T. Henthorn, University of Colorado School of Medicine, Aurora, CO

Using novel methodologies to ask and answer new questions in substance abuse research
D. Feaster, University of Miami Miller School of Medicine, Miami, FL
Odd numbered posters manned first hour
Even-numbered, second hour

Set up time begins Sunday, 1:00 PM
Must be removed by Monday, 12:00 noon

PERINATAL

1. The detection of prenatal marijuana exposure using meconium and umbilical cord: A comparison using matched pairs
   Mary Jones¹, Joseph Jones¹, Jason Hulen¹, ¹United States Drug Testing Laboratories, Des Plaines, IL

2. White-matter crossing-fiber microstructure in adolescents prenatally exposed to cocaine
   Kristen Morie², Sarah Yip³, Zu Wei Zhai⁴, Jiansong Xu⁵, Rajita Sinha⁶, Linda Mayes¹, Marc Potenza², ¹Yale University, New Haven, CT, ²Yale School of Medicine, New Haven, CT

3. Receipt of antenatal steroids and respiratory support among substance-exposed premature infants
   Yukiko Washio¹, Neal Goldstein², Amy Mackley³, Matthew Hoffman³, Robert Locke³, David Paul³, ¹Christiana Care Health Services/University of Delaware, Media, PA, ²Christiana Care Health Services/Drexel University, Philadelphia, PA, ³Christiana Care Health Services, Wilmington, DE

4. Fetal assessment measured with multi-sensor abdominal array in buprenorphine-maintained women compared to controls
   Jessica Coker¹, Diana Escalona-Vargas¹, Shona Ray-Griffith¹, Curtis Lowery¹, Hari Eswaran¹, Zachary Stowe¹, ¹University of Arkansas for Medical Sciences, Little Rock, AR

5. Opioid-dependent pregnant women with higher engagement in methadone maintenance treatment and specialty programming have better maternal, neonatal and family outcomes
   Leslie Lundahl¹, Corissa Carlson¹, Dragana Ostojic², David Ledgerwood¹, Mark Greenwald¹, Deepti Challagolla³, ¹Wayne State University, Detroit, MI, ²University of Windsor, Windsor, ON, ³University of Mississippi Medical Center, Jackson, MI

6. Does maternal drug treatment access affect the relationship between adult opioid misuse and neonatal abstinence syndrome?
   Sebastian Tong¹, Elizabeth Wolf¹, Roy Sabo¹, Alex Krist¹, James Pecsok¹, Kassie Abbinanti², Dace Svikis¹, ¹Virginia Commonwealth University, Richmond, VA, ²University of Virginia, Charlotteville, VA

7. Increasing effective contraceptive use among opioid-maintained women at risk for unintended pregnancy
   Sarah Heil¹, Alexis Matusiewicz², Heidi Melbostad¹, Stacey Sigmon¹, Lauren Macafee¹, Stephen Higgins¹, ¹University of Vermont, Burlington, VT, ²University of Vermont, Ann Arbor, MI
9 Delay discounting of pregnancy- and condom-protected sex among methadone-maintained women
   Dennis Hand1, Lindsay Reid1, Diane Abatemarco1, 1Thomas Jefferson University, Philadelphia, PA

10 Knowledge and attitudes about pregnancy prevention among women who are opioid-maintained
   Heidi Melbostad1, Alexis Matusiewicz2, Sarah Heil1, 1University of Vermont, Burlington, VT, 2University of Vermont, Ann Arbor, MI

11 The utility of a cigarette purchase task in detecting differences in the reinforcing efficacy of cigarettes between opioid-maintained and non-dependent pregnant cigarette smokers
   Ivori Zvorsky1, Joan Skelly1, Stephen Higgins2, 1Vermont Center on Behavior and Health, Burlington, VT, 2University of Vermont, Burlington, VT

12 Cannabis use in pregnant and recently postpartum cigarette smokers and nonsmokers
   Cecilia Bergeria1, Sarah Heil1, Allison Kurti1, Taylor Ochalek1, Stephen Higgins1, 1University of Vermont, Burlington, VT

13 Examining patterns of tobacco product use among pregnant women
   Allison Kurti1, Ryan Redner2, Alexa Lopez1, Diana Keith1, Cassandra Stanton3, Diann Gaalema4, Janice Bunn1, Nathan Doogan5, Megan Roberts5, Antonio Cepeda-Benita1, Julip Phillips1, Stephen Higgins1, 1University of Vermont, Burlington, VT, 2University of Vermont UHC Campus, Burlington, VT, 3Ohio State University, Columbus, OH

15 The association between medical marijuana law and maternal marijuana use
   J. Jones, United States Drug Testing Laboratories, Des Plaines, IL

16 Characteristics of marijuana-using pregnant women entering and leaving treatment
   Mishka Terplan1, Yukiko Washio2, 1Virginia Commonwealth University, Richmond, VA, 2Christiana Care Health Services/University of Delaware, Media, PA

17 Predictors of risk of illicit drug use during pregnancy among women attending midwife obstetric units in the Cape Metropole, South Africa
   Petal Petersen1, Catherine Mathews2, Esme Jordaan2, Charles Parry3, 1South African Medical Research Council, Tygerberg, South Africa, South Africa, 2University of Cape Town, Western Cape, South Africa, 3South African Medical Research Council, Tygerberg, South Africa

NICOTINE I

18 Separate and combined effects of the nicotine-specific monoclonal antibody, nic9d9, and a nicotinic receptor antagonist on nicotine discrimination in rats
   Mark Lesage1, Paul Pentel2, Mylissa Staley1, Amy Saykao1, Bin Zhou3, Kim Janda3, Matthew Kalnik4, 1Minneapolis Medical Research Foundation, Minneapolis, MN, 2Hennepin County Medical Center, Minneapolis, MN, 3Scripps Research Institute, La Jolla, CA, 4Antidote Therapeutics, Inc., Bethesda, MD

19 Comparison by rat intravenous self-administration of the reinforcing effects of nicotine vs. three C-II drugs
   David Heal1, Sharon Smith1, 1RenaSci Ltd, Nottingham, Nottinghamshire, United Kingdom
<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Effects of nicotine exposure on behavioral inhibition and self-administration in differentially reared rats</td>
<td>Dustin Stairs, Nicole Chacho, Rachel Busselman, Madison Wolfe, Scott Christenson, Creighton University, Omaha, NE</td>
</tr>
<tr>
<td>21</td>
<td>Flavor conditioned reinforcers promote nicotine self-administration in rats</td>
<td>Amy Patterson, Amanda Smith, Curtis Bradley, Moss Sanders, Jessica Golson, Matthew Palmatier, East Tennessee State University, Johnson City, TN</td>
</tr>
<tr>
<td>22</td>
<td>Dorsal anterior cingulate glutamate is associated with engagement of the default mode network during exposure to smoking cues</td>
<td>Amy Janes, Jennifer Betts, J. Eric Jensen, Scott Lukas, McLean Hospital, Harvard Medical School, Belmont, MA</td>
</tr>
<tr>
<td>23</td>
<td>Inhibiting the insula in smokers: Preliminary results using rTMS and fMRI</td>
<td>Michael F. Regner, Benzi Kluger, Jason Tregellas, Brianne Mohl, Dorothy Yamamoto, Jody Tanabe, University of Colorado, Boulder, CO</td>
</tr>
<tr>
<td>24</td>
<td>Neural mechanisms of impaired learning from errors in dependent smokers</td>
<td>Leonie Duehlmeyer, Bianca Levis, Rob Hester, University of Melbourne, Coburg, Victoria, Australia</td>
</tr>
<tr>
<td>25</td>
<td>Influence of treatment-induced changes in smoking-cue reactivity on long-term smoking abstinence</td>
<td>Paul Wannas, Peter Selby, Nancy Lobaugh, Laurie Zawertailo, University of Toronto, Toronto, ON, Centre for Addiction and Mental Health, Toronto, ON, Canada</td>
</tr>
<tr>
<td>26</td>
<td>Development of a measure for affect during cigarette smoking anticipation</td>
<td>Philip Smith, Neelam Prashad, Lunden Sara, Christine Sheffer, Adam Leventhal, Sherry McKee, CUNY School of Medicine, New York, NY, Roswell Park Cancer Institute, Buffalo, NY, University of Southern California, Los Angeles, CA, Yale School of Medicine, New Haven, CT</td>
</tr>
<tr>
<td>27</td>
<td>Effects of positive and negative episodic future thinking on delay discounting and behavioral-economic demand for cigarettes</td>
<td>Jeffrey Stein, Jamie Turner, Patsy Marshall, Virginia Tech Carilion Research Institute, Roanoke, VA</td>
</tr>
<tr>
<td>28</td>
<td>An analogue of relapse: Comparing monetary incentives, episodic future thinking, and implementation intentions</td>
<td>Lara Moody, Lindsey Poe, Olivia Petrusky, Patsy Marshall, Virginia Tech Carilion Research Institute, Roanoke, VA</td>
</tr>
<tr>
<td>29</td>
<td>Priming 2.0: Reducing delay discounting</td>
<td>Ria Malhotra, Alina Shevorykin, Jami Pittman, Neelam Prashad, Lunden Sara, Christine Sheffer, CUNY School of Medicine, New York, NY, Pace University, Westchester County, NY, Roswell Park Cancer Institute, Buffalo, NY</td>
</tr>
<tr>
<td>30</td>
<td>Contingency management for abstinence vs. contingency management for shaping cessation among treatment-seeking smokers in a community setting</td>
<td>Carla López Núñez, Roberto Secades Villa, Sara Weidberg, Alba González Roz, Private Technical University, Loja, Ecuador, University of Oviedo, Oviedo, Spain, Spain, University of Oviedo, Oviedo, Spain</td>
</tr>
<tr>
<td>31</td>
<td>Moderation of four behavioral interventions for smoking among juvenile detainees</td>
<td>L. Stein, University of Rhode Island, Kingston, RI</td>
</tr>
</tbody>
</table>
Doxazosin improves inhibitory control and reduces withdrawal symptoms in smokers
Walter Roberts¹, Sherry McKee¹, ¹Yale School of Medicine, New Haven, CT

Real-world effectiveness of bupropion and varenicline for smoking cessation: An internet-based randomized controlled trial
Helena Zhang², Bernard Le Foll², Peter Selby³, Laurie Zawertailo³, ¹University of Toronto, Toronto, ON, ²Centre for Addiction and Mental Health, Toronto, ON, ³Centre for Addiction and Mental Health, Toronto, ON, Canada

Autonomy and perceived competence for predicting treatment adherence and abstinence among smokers taking varenicline
Amir Abdolahi¹, Geoffrey Williams², ¹Philips, Sterling, VA, ²University of Rochester Medical Center, Rochester, NY

Duration, intensity and frequency of physical activity as predictors of smoking cessation outcomes among treatment-seeking patients
Michael Hoang¹, Peter Selby², Martin Zack³, Laurie Zawertailo², ¹University of Toronto, Toronto, ON, ²Centre for Addiction and Mental Health, Toronto, ON, Canada, ³Centre for Addiction and Mental Health, Toronto, ON

Cerebral blood flow changes within abstinent vs. satiated smokers
Bader Chaarani¹, Philip Spechler¹, Alexandra Ivanciu¹, Stephen Higgins¹, Hugh Garavan¹, ¹University of Vermont, Burlington, VT

Harm reduction or tool for initiation: Testing two models of e-cigarette and cigarette use in a high-risk longitudinal cohort
David Fink¹, Katherine Keyes¹, Renee Goodwin², Gregory Cohen³, Laura Sampson³, Marijo Tamburrino³, Israel Liberzon³, Joseph Calabrese⁶, Sandro Galea¹, ¹Columbia University Mailman School of Public Health, Newark, NJ, ²CUNY School of Medicine, New York, NY, ³Boston University School of Public Health, Boston, MA, ⁴University of Toledo Health Science Center, Toledo, OH, ⁵University of Michigan-Psychology, Ann Arbor, MI, ⁶University Hospitals Case Medical Center, Case Western Reserve School of Medicine, Cleveland, OH

STIMULANTS: HUMAN STUDIES

A randomized controlled trial of a simplified manual-only treatment for caffeine use disorder
Mary Sweeney¹, Steven Meredith², Laura Juliano², Daniel Evatt², Roland Griffiths³, ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins University, Baltimore, MD, ³Johns Hopkins School of Medicine, Baltimore, MD

Effects of N-acetylcysteine on drug seeking and frontocortical glutamate in cocaine abusers
Mark Greenwald¹, Eric Woodcock¹, Leslie Lundahl¹, Dalal Khatib¹, Jeffrey Stanley¹, ¹Wayne State University, Detroit, MI

Mindful attention to drug-cues reduces neural reactivity in reward-relevant brain regions
Michael Gawrysiak¹, Kanchana Jagannathan², Stefanie Darnley², Elliott Sturgis-Berkowitz², Kathleen Marquez², Zach Monge², Kyle Kampman², Winnie Thuku¹, Norna Jules¹, Anna Rose Childress² ¹Delaware State University, Wilmington, DE, ²University of Pennsylvania, Philadelphia, PA
41 Atomoxetine in abstinent cocaine users
Elise DeVito¹, Aryeh Herman², Noah Konkus², Huiping Zhang³, Mehmet Sofuoglu², ¹Yale School of Medicine, New Haven, CT, ²Yale University, New Haven, CT

42 Reduction in cocaine use during a topiramate clinical trial among cocaine and alcohol-dependent participants predict better scores of SF-36 for quality of life after treatment
Lysa Remy¹, George Woody³, Kevin Lynch¹, Kyle Kampman³, ¹Postgraduate Program in Pharmaceutical Sciences, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, ²University of Pennsylvania, Philadelphia, PA, ³University of Pennsylvania, Department of Psychiatry, Philadelphia, PA

43 Impact of alcohol dependence diagnosis on self-reported alcohol and cocaine use in cocaine-dependent patients
Michael Mancino¹, Jeff Thostenson¹, Joseph Guise¹, Janette McGaugh¹, Thomas Kosten², Alison Oliveto¹, ¹University of Arkansas for Medical Sciences, Little Rock, AR, ²Baylor College of Medicine, Houston, TX

44 Higher prevalence of detectable troponin I among cocaine users without known cardiovascular disease
Elise Riley¹, Priscilla Hsue¹, Eric Vittinghoff³, Alan Wu¹, Phillip Coffin², Peter Moore¹, Kara Lynch¹, ¹UCSF, San Francisco, CA, ²San Francisco Department of Public Health, San Francisco, CA

45 More severe executive abnormalities in crack vs. snorted cocaine dependent patients: A neuropsychological study
Paulo Jannuzzi Cunha¹, Hercílio Pereira de Oliveira Junior², Priscila Dib Gonçalves², Mariella Onetto², Bernardo Santos², André Malbergier², Ricardo Amaral², Sergio Nicastri², Arthur Andrade², ¹University of Sao Paulo Medical School, Sao Paulo SP, Brazil, ²University of Sao Paulo Medical School, Sao Paulo SP, Brazil

46 Of sleet and snow: Are newly incident crack users at greater risk of developing cocaine dependence problems soon after onset of cocaine use?
Madhur Chandra¹, James Anthony¹, ¹Michigan State University, Lansing, MI

47 Combating craving with contingency management: Neuroplasticity and methamphetamine abuse in South Africa
Lara van Nuen¹, Jonathan Ipser², Dan Stein², Samantha Brooks³, Edythe London³, Steve Shoptaw¹, ¹University of Cape Town, Western Cape, South Africa, South Africa, ²University of Cape Town, Western Cape, South Africa, ³UCLA, Los Angeles, CA

48 Contingency management and strengths-based case management interventions for methamphetamine users in Denver, CO
Karen Corsi¹, Jonathan Davis¹, Janet Spradley¹, Robert Booth², ¹University of Colorado School of Medicine, Aurora, CO, ²University of Colorado School of Medicine, Denver, CO

49 Baseline urinalysis as a mediator between education level and treatment outcomes in two contingency management stimulant use clinical trials
Crystal Smith¹, Michael Orr², John Roll², Sterling McPherson¹, ¹Washington State University, Program of Excellence in Addictions Research, Spokane, WA, ²Washington State University College of Nursing, Spokane, WA, ³Washington State University, College of Medicine, Spokane, WA
Delay discounting, financial choices, and drug use in a therapeutic workplace
Shrinidhi Subramaniam1, Anthony DeFulio2, Brantley Jarvis3, August Holtyn1, Kenneth Silverman4, 1Johns Hopkins University School of Medicine, Baltimore, MD; 2Western Michigan University, Kalamazoo, MI; 3Johns Hopkins University School of Medicine, Parkville, MD; 4Johns Hopkins University, Baltimore, MD

IMPULSIVITY

Implication of disrupted serotonin: Glutamate synergy upon impulsivity
Brionna Davis-Reyes1, Veronica Campbell1, Noelle Anastasio1, 1University of Texas Medical Branch, Galveston, TX

A pilot feasibility and acceptability trial of inhibitory control training with cocaine users
Erika Pike1, Christina Studts1, William Stoops1, Craig Rush1, 1University of Kentucky, Lexington, KY

Pre-intervention risky decision-making as a predictor of relapse in methamphetamine users undergoing Contingency Management
Marilyn Lake1, Jonathan Ipser2, Lara van Nunen1, Edythe London3, Dan Stein2, Samantha Brooks2, Steve Sibert2, 1University of Cape Town, Western Cape, South Africa, South Africa, 2University of Cape Town, Western Cape, South Africa, 3UCLA, Los Angeles, CA

Nonmedical prescription stimulant users experience subjective but not objective impairments in attention and impulsivity
Alison Looby1, Sarah Kittleson2, 1University of Wyoming, Laramie, WY; 2University of North Dakota, Grand Forks, ND

Motives, consequences, and personality factors associated with nonmedical fentanyl use
Tess Kilwein1, Alison Looby1, 1University of Wyoming, Laramie, WY

Translational neuroimaging to predict treatment outcome among patients in residential treatment for prescription opiate use disorder
S. Bunce1, Andrew Huhn2, Dean Stankoski3, E Deneke4, E. Bixler1, Roger Meyer5, 1Penn State College of Medicine, Hershey, PA; 2Johns Hopkins University School of Medicine, Baltimore, MD; 3Penn State University College of Medicine, Hershey, PA; 4Caron Treatment Center, Wernersville, PA; 5Penn State College of Medicine, Psychiatry, Washington, DC

Thicker frontal lobe regions associated with impulsivity and craving in smokers
Yasmin Mashhoon1, Jennifer Betts1, Stacey Farmer2, Scott Lukas1, 1McLean Hospital, Harvard Medical School, Belmont, MA; 2McLean Hospital, Brain Imaging Center, Belmont, MA

GENES AND MOLECULAR MECHANISMS

Comparative mammalian genetics of addiction disorders
E. Vallender, University of Mississippi Medical Center, Jackson, MS

Increased motivation to self-administer cocaine is linked to enhanced cocaine-induced gene regulation in the frontal cortex and dorsal striatum
Ellie-Anna Minogianis1, Anne-Noël Samaha1, 1Université de Montréal, Department of Pharmacology and Physiology, Outremont, QC, Canada
Novel antiaddiction target and ligand: Illudalic acid derivatives inhibit recombinant PTPRD phosphatase and are tolerated in vivo
George Uhl1, Paul Paik2, Maria MArtinez3, Agnes Sulima1, Kenner Rice4, Jana Drgonova5, 1NIDA, Bethesda, MD, 2NIDA Intramural Research Program, Baltimore, MD, 3BRINM, Albuquerque, NM, 4NIH, NIDA, Rockville, MD, 5Center for Scientific Review, Bethesda, MD

Biomarker discovery for marijuana use utilizing modified aptamer and metabolomic panels
Christian Hopfer1, Laura Saba2, Kristen Raymond2, Jost Klawitter2, Uwe Christians2, 1University of Colorado School of Medicine, Aurora, CO, 2University of Colorado, Denver, CO

Polymorphisms and stressors associated with alcohol dependence
Maria Lucia Souza-Formigoni1, Isabel Cristina Cespedes2, José Carlos Fernandes Galduroz2, Tatiana Wscieklica2, Patricia Varela2, João Bosco Pesquero2, 1Universidade Federal de São Paulo, São Paulo, Brazil, Brazil, 2Universidade Federal de São Paulo, São Paulo, Brazil

Association of the DRD2/ANKK1 A1 allele with alcohol consumption in Mexican Native Amerindians and in a non-native population
Octavio Campollo1, Arturo Panduro2, Omar Ramos Lopez2, Eloy A. Zepeda Carrillo3, Karina Gonzalez Aldaco2, Rafael Torres Valadez2, Sonia Roman2, 1Universidade Federal de Guadalajara, Guadalajara, Jalisco, Mexico, 2Universidad de Guadalajara, Guadalajara, Jalisco, México, 3Universidad de Colima, Colima, Mexico

Neighborhood drug exposure modifies heritability of cigarette initiation in adolescents
C. Bares, University of Michigan, Ann Arbor, MI

OPIOIDS I

Medial frontal cortex glutathione levels and temperature are increased in GT-tg bigenic mice expressing HIV-Tat protein: A proton MRS study
Jae Kim1, Dionyssios Mintzopoulos2, Timothy Gillis3, Gordana Vitaliano2, Jay McLaughlin1, Marc Kaufman2, 1McLean Hospital, Harvard Medical School, Belmont, MA, 2McLean Hospital, Brain Imaging Center, Belmont, MA, 3ADARC - McLean Hospital, Belmont, MA, 4University of Florida, Gainesville, FL

Identification of new psychoactive substances: Opioid receptor agonist in CHO cells expressing the cloned human mu opioid receptor
M. Funada, NIMH, NCNP, Tokyo, Japan

Oxycodone addiction: A multimodel magnetic resonance imaging study in response to acute and chronic oxycodone treatment in rats
S. Iriah, Northeastern, Roxbury, MA

Efficacy of heroin and oxycodone vaccines for reducing opioid distribution to brain over a range of drug doses in rats
Michael Raleigh1, Megan Laudenschbach1, Federico Baruffaldi1, Samantha Peterson1, Michaela Roslawski2, Angela Birnbaum2, F. Ivy Carroll1, Scott Runyon3, Scott Winston4, Paul Pentel5, Marco Pravetoni1, 1Minneapolis Medical Research Foundation, Minneapolis, MN, 2University of Minnesota College of Pharmacy, Minneapolis, MN, 3RTI International, Research Triangle Park, NC, 4Winston Biopharmaceutical Consulting, 5Hennepin County Medical Center, Minneapolis, MN
Safety and efficacy of an oxycodone vaccine: Addressing some of the unique considerations posed by opioid abuse
Marco Pravetoni1, Michael Raleigh1, Samantha Peterson1, Megan Laudenbach1, Federico Baruffaldi2, F. Ivy Carroll2, Scott Runyon2, Scott Winston1, Paul Pentel1, 1Minneapolis Medical Research Foundation, Minneapolis, MN, 2RTI International, Research Triangle Park, NC, 3Winston Biopharmaceutical Consulting, 4Hennepin County Medical Center, Minneapolis, MN

Circadian disruption during opioid agonist maintenance: Associations with heroin and cocaine use
Jeremiah Bertz1, David Epstein1, Mark Rea2, Mariana Figueiro2, Greg Ward2, Kenzie Preston1, 1NIDA Intramural Research Program, Baltimore, MD, 2Lighting Research Center, Rensselaer Polytechnic Institute, Troy, NY

Sleep disturbances in subjects with opioid use disorder on buprenorphine
Alissa Coffey1, V.B Krishnamurthy1, S Yadav1, J Singh1, L Kong1, E. F. Saunders1, A.N Vgontzas1, E. Bixler1, Roger Meyer2, 1Penn State College of Medicine, Hershey, PA, 2Penn State College of Medicine, Psychiatry, Washington, DC

Understanding use of buprenorphine without a prescription
Howard Chilcoat1, Theodore Cicero2, Matthew Ellis2, 1Indivior Inc., Richmond, VA, 2Washington University in St. Louis, St. Louis, MO

The frequency of tapering off buprenorphine maintenance in a primary care office-based opioid treatment program
Zoe Weinstein1, Jeffrey Samet1, Colleen Labelle1, Gabriela Grczcynski2, Debbie Cheng1, Emily Quinn1, David Hui1, Hyunjoong Kim1, 1Boston University School of Medicine, Boston, MA, 2Kaiser Permanente, Oakland, CA

Acceptability of intravenous buprenorphine as a treatment for opioid dependence: Results from a community-based survey among people who inject drugs with high-risk behaviors in France
Perrine Roux1, Daniela Rojas-Castro2, Khadim Ndiaye1, Virginie Laporte2, Marion Mora1, Gwenaëlle Maradan1, Stephane Morel2, Bruno Spire1, Patrizia Carrieri1, 1INSERM, Marseille, France, 2AIDES, France

Relapse to opioid dependence after inpatient or outpatient treatment: Protective effect of injection naltrexone
Edward Nunes1, Michael Gordon2, Peter Friedmann3, Mei-Chen Hu4, Joshua Lee5, Donna Chen6, Marc Fishman7, Tamara Boney8, Donna Wilson9, Charles O'Brien8, 1Columbia University and NYSPI, New York, NY, 2Friends Research Institute, Baltimore, MD, 3Baystate Health, Springfield, MA, 4Columbia University Medical Center, Department of Psychiatry, New York, NY, 5New York University School of Medicine, New York, NY, 6University of Virginia, Charlottesville, VA, 7Mountain Manor Treatment Center, Emmitsburg, MD, 8University of Pennsylvania, Philadelphia, PA

Injectable naltrexone, oral naltrexone, and buprenorphine/naloxone utilization and discontinuation among individuals treated for opioid use disorder in a U.S. commercially insured population
Jake Morgan1, Bruce Schackman2, Jared Leff2, Benjamin Linas1, Alexander Walley1, 1Boston University School of Medicine, Boston, MA, 2Weill Cornell Medicine, New York, NY
77 Baseline characteristics by randomization status in the extended-release naltrexone vs. buprenorphine for opioid treatment clinical trial
Jeanine May¹, Dagmar Salazar¹, Patricia Novo², Dikla Blumberg¹, Abigail Matthews¹, John Rotrosen², ¹The Emmes Corporation, Rockville, MD, ²New York University School of Medicine, New York, NY

78 Baseline characteristics of the opioid use disorder population enrolled in NIDA CTN-0051, “Extended-release naltrexone vs. buprenorphine for opioid treatment”
Patricia Novo¹, Edward Nunes², Martina Pavlicova³, Jennifer Scodes³, Joshua Lee¹, Jeanine May⁴, Dagmar Salazar⁴, Dikla Blumberg⁴, John Rotrosen¹, ¹New York University School of Medicine, New York, NY, ²Columbia University and NYSPI, New York, NY, ³Columbia University Mailman School of Public Health, Newark, NJ, ⁴The Emmes Corporation, Rockville, MD

79 Comparison of long-term buprenorphine treatment retention in patients with opioid use disorder in the Veterans Health Administration and in privately insured adults
Ajay Manhapra¹, Edeanya Agbese MPH², Douglas Leslie³, Robert Rosenheck³, ¹Yale School of Medicine; Hampton VA Medical Center, Norfolk, VA, ²Penn State College of Medicine, Department of Public Health Sciences, Hershey, PA, ³Yale University-Psychiatry, New Haven, CT

80 Treatment outcomes among a cohort of African-American buprenorphine patients: Follow-up at 12- and 18-months
Laura Monico¹, Jan Gryczynski¹, Robert Schwartz¹, Jerome Jaffe¹, Kevin O’Grady², Shannon Mitchell¹, ¹Friends Research Institute, Baltimore, MD, ²University of Maryland-Psychology, College Park, MD

81 The Recovery Line supports harm reduction in methadone maintenance
Brent Moore¹, Frank Buono¹, Daniel Lloyd¹, Destiny Printz¹, Declan Barry¹, Richard Schottenfeld¹, David Fiellin¹, ¹Yale School of Medicine, New Haven, CT

HEALTH DISPARITIES

82 Association of race and ethnicity on national prescribing patterns for childhood ADHD
Leila Vaezazizi¹, Peter Bearman², Marissa King³, Edward Nunes¹, Helena Hansen⁴, ¹Columbia University and NYSPI, New York, NY, ²Columbia University Department of Sociology, New York, NY, ³Yale University, New Haven, CT, ⁴New York University Medical Center, New York, NY

83 Associations between past-year marijuana use, arrests, and race/ethnicity among 18-49-year-olds in the United States, 2002-2014
Alexander Perlmutter¹, Luis Segura², Julian Santaella-Tenorio², Christine Mauro², Pia Mauro², Silvia Martins³, ¹Columbia University, New York, NY, France, ²Columbia University, New York, NY, ³Columbia University Mailman School of Public Health, Newark, NJ

84 National scope of adults in substance use treatment who attempt suicide
Jane Pearson¹, Lisa Colpe¹, Michael Schoenbaum¹, ¹National Institute of Mental Health, Bethesda, MD

85 Racial/ethnic trends of heroin and non-medical use of prescription opioids among entrants to opioid treatment programs, 2005-2016
Andrew Rosenblum¹, Enrique Pouget², Chunki Fong², ¹Credit Services, Metuchen, NJ, ²National Development and Research Institute, Inc., New York, NY
Monday, June 19, 2017

Jose Parra-Cardona¹, Maria Parker², James Anthony¹, ¹Michigan State University, Lansing, MI, ²University of Vermont, Burlington, VT

87 Gender and race/ethnic differences in the persistence of alcohol, drug, and polysubstance use disorders
Elizabeth Evans¹, Christine Grella², Donna Washington³, Dawn Upchurch⁴, ¹US Department of Veterans Affairs, Woodland Hills, CA, ²UCLA-ISAP, Los Angeles, CA, ³VA Greater Los Angeles Healthcare System, Santa Fe Springs, CA, ⁴UCLA Fielding School of Public Health, Los Angeles, CA

PSYCHIATRIC COMORBIDITY

88 How patients with PTSD+SUD change across CBT treatments: A secondary analysis of two randomized clinical trials
Denise Hien¹, Kathryn Smith², Max Owens³, Teresa Lopez-Castro⁴, Lesia M. Ruglass⁵, ¹Adelphi University, Garden City, NY, ²Columbia University Medical Center, New York State Psychiatric Institute, New York, NY, ³University of South Florida, Tampa, FL, ⁴The City College of New York, New York City, NY, ⁵CUNY Graduate School of Public Health and Health Policy, New York, NY

89 Coping-oriented cannabis use interacts with PTSD symptoms to predict veteran psychosocial functioning
James Sottile¹, Kimberly Babson², Danielle Morabito², Mallory Loflin³, Marcel Bonn-Miller², ¹Palo Alto University, East Palo Alto, CA, ²VA Palo Alto Health Care System, San Francisco, CA, ³National Center for PTSD, Dissemination & Training Division, San Diego, CA

90 Substance use is associated with increased risk-taking behavior in heavy drinking veterans with posttraumatic stress disorder
David Pennington¹, Lamisha Muquit², Jennifer Bielenberg¹, Jennifer Dack¹, Melissa O'Donnell¹, Brooke Lasher¹, Alexander Kinzler¹, Ellen Herbst¹, Steven Batki¹, ¹San Francisco VA Medical Center, San Francisco, CA, ²Palo Alto University, Union City, CA

91 Prediction of alcohol use disorder onset by latent internalizing psychopathology risk profiles in adolescence and young adulthood
Silke Behrendt¹, Gerhard Bühringer³, Michael Höfler², Roselind Lieb², Katja Beesdo-Baum³, ¹Technische Universität Dresden, Dresden, Germany, ²University Basel, Division of Clinical Psychology and Epidemiology, Basel, Switzerland, ³Behavioral Epidemiology, Technische Universität Dresden, Dresden, Germany

92 A pilot test of a brief intervention for hazardous/harmful alcohol use and depression among chronic disease patients in the Western Cape, South Africa
Bronwyn Myers¹, Katherine Sorsdahl¹, Petal Petersen¹, Claire van der Westhuizen², Tracey Naledi³, Crick Lund⁴, Carl Lombard⁵, Chris Butler⁶, Naomi Levitt⁷, John Joska², Peter Milligan⁵, Dan Stein², ¹South African Medical Research Council, Tygerberg, South Africa, ²Africa, ³University of Cape Town, Western Cape, South Africa, ⁴Western Cape Department of Health, Western Cape, South Africa, ⁵South African Medical Research Council, Tygerberg, South Africa, ⁶University of Oxford, Oxford, UK
Seriously mentally ill adults who are stably housed are more likely to complete a contingency management intervention for alcohol dependence
Emily Leckly1, Jordan Skalisky2, Oladunni Oluwoye3, Sterling McPherson3, Debra Srebnik3, John Roll3, Richard Ries4, Michael McDonell1, 1Washington State University, Program of Excellence in Addictions Research, Spokane, WA, 2Washington State University, Pullman, WA, 3Washington State University, College of Medicine, Spokane, WA, 4University of Washington, Seattle, WA, 5Washington State University College of Nursing, Spokane, WA

Depression among people living with HIV/AIDS receiving smoking cessation treatment
David Ledgerwood1, Leslie Lundahl1, Mark Greenwald1, Cynthia Arfken1, Manuel Tancer1, Jonathan Cohn1, 1Wayne State University, Detroit, MI

Association between depressive symptoms and smoking status in individuals receiving behavioral activation treatment
Alba González-Roz1, Sara Weidberg2, Víctor Martínez-Loredo4, Aris Grande-Gonsende2, Roberto Secades Villa2, 1University of Oviedo, Addictive Behaviors Group, Oviedo, Spain, 2University of Oviedo, Oviedo, Spain

Effects of smoking abstinence on delay discounting in smokers with depression
Sara Weidberg1, Alba González-Roz2, Ángel García-Pérez1, Irene Pericot-Valverde3, Roberto Secades Villa4, 1University of Oviedo, Oviedo, Spain, 2University of Oviedo, Addictive Behaviors Group, Oviedo, Spain, 3University of Vermont, Burlington, VT, 4University of Oviedo, Oviedo, Spain

Synthetic cannabinoid use in relation to psychosis: Evaluation of the role of stress and immune systems
Anahita Bassir Nia1, Sharron Spriggs1, Charles Perkel1, Chloe Tessereau1, Hadi Estakhri1, Samantha Jankowski1, Afshan Husain1, Anna Oprescu1, Igor Galynker1, Yasmin Hurd1, 1Icahn School of Medicine at Mount Sinai, New York, NY

Is nonmedical prescription opioid and/or marijuana use associated with higher major depression prevalence among U.S. young adults?
Luis Segura1, Julian Santaella-Tenorio1, Christine Mauro1, Silvia Martins1, 1Columbia University, New York, NY

Gender differences in effects of interim buprenorphine treatment on psychiatric symptoms
Joanna Streck1, Taylor Ochalek2, Gary Badger2, Stacey Sigmon2, 1Vermont Center on Behavior and Health, Burlington, VT, 2University of Vermont, Burlington, VT

PROGRAM DESCRIPTIONS

The National Institute on Drug Abuse drug supply program: Facilitating research through compound inventory and supply
Richard Kline, Ph.D.1, Kevin Gormley2, Steven Gust3, Robert Walsh4, 1CPB/DTMC/NIDA/NIH, Rockville, MD, 2RTI International, Research Triangle Park, NC, 3OD/NIDA/NIH, Bethesda, MD, 4NIDA NIH, Bethesda, MD

NIDA addiction treatment discovery program: Evaluation of potential pharmacotherapies for substance use disorders
David White1, Jane Acri2, 1Medications Discovery and Toxicology Branch, Bethesda, MD, 2NIDA, Bethesda, MD
102 Safety interactions of potential cocaine treatment medications: Example of a dopamine D3 antagonist  
Jane Acri¹, Nathan Appel², ¹NIDA, Bethesda, MD, ²NIDA, DTMC, Bethesda, MD  

103 Exploring various approaches to account for prescribed availability when estimating prescription opioid abuse rates using the ASI-MV®  
Ryan Black¹, Stephen Butler¹, Paul Coplan³, ¹Inflexxion, Inc, Waltham, MA, ²Purdue Pharma L.P., Stamford, CT  

104 Improving care with standardized triage, assessment, placement and utilization review  
David Gastfriend¹, Desiree Crevecouer-MacPhail², Brian Hurley², Tina Kim³, Gary Tsai³, ¹Treatment Research Institute, Philadelphia, PA, ²UCLA, Los Angeles, CA, ³Los Angeles County, Dept of Public Health, Substance Abuse Prevention and Control, Los Angeles, CA  

105 INTAC® – a technology platform for extended release, immediate release and fixed-dose combination opioids with abuse deterrent characteristics  
Hans-Jürgen Stahlberg¹, Sebastian Schwier¹, Klaus Wening¹, Eric Galia¹, ¹The Grünenthal Group, Aachen, Germany  

106 The NIDA behavioral therapy development program  
Wil Aklin¹, Kevin Walton¹, ¹NIH, Bethesda, MD  

107 An investigation of an open access model for scaling up methadone maintenance treatment  
Lynn Madden¹, Kathryn Eggert¹, Scott Farnum¹, Robert Freeman¹, Declan Barry², ¹APT Foundation, Inc., New Haven, CT, ²Yale School of Medicine, New Haven, CT  

108 Developing a shared decision-making graphic novel curriculum on medication-assisted treatment  
Adam Brooks¹, Lawrence Schoen², Carolyn Carpenedo¹, Elizabeth Byrne¹, Douglas Boyd¹, ¹Treatment Research Institute, Philadelphia, PA, ²Wedge Medical Center, Philadelphia, PA  

109 Multisite study on comprehensive opioid overdose prevention strategies with special emphasis on community settings and the use of injectable or intranasal naloxone  
Anja Busse¹, Gilberto Gerra², Vladimir Poznyak³, Rebecca McDonald⁴, Nicolas Clark³, Elizabeth Saenz⁵, Wataru Kashino⁵, Gabriele Aiello⁵, John Strang⁶, ¹United National Office on Drugs and Crime, Vienna, Austria, Austria, ²Global Challenges Section, Vienna, Austria, Austria, ³World Health Organization, Geneva, Switzerland, ⁴King's College, London, UK, ⁵United National Office on Drugs and Crime, Vienna, Austria, ⁶King's College, London, UK, United Kingdom  

110 A case study of the public response to the opioid overdose epidemic: The Philadelphia story  
Silvana Mazzella¹, Jerry Stahler², ¹Prevention Point Philadelphia, Temple University, Philadelphia, PA, ²Temple University, Philadelphia, PA  

111 Pain and affective symptoms in chronic pain patients in opioid addiction treatment recruited to test an online pain self-management program  
Myles Finlay¹, Marian Wilson¹, Michael Orr¹, Mary Lee A. Roberts¹, Celestina Barbosa-Leiker¹, John Roll¹, ¹Washington State University College of Nursing, Spokane, WA
Achieving opioid safety with patient, clinician and pharmacist partnership
Miltika Kanabar¹, Kimberly Kwok¹, Kevin Miller¹, Murtuza Ghadiali¹, David Pating¹, Julie Lim¹, ¹Kaiser Permanente, Oakland, CA

The catalyst clinic: Implementing a primary care-based, multidisciplinary team approach for adolescents and young adult who use substances
Brittany Carney¹, Scott Hadland¹, Sarah Bagley¹, ¹Boston University School of Medicine, Boston, MA

Successful of non-scheduled urine drug tests among all students in a private high school in Las Vegas
Miriam Adelson¹, Shirley Linzy², Mary Jeanne Kreek³, Paul Schiffman⁴, Eiν Peles⁵, ¹Adelson Clinic, Tel Aviv Medical Center, Tel Aviv, Israel, ²Adelson Clinic, Las Vegas, NV, ³The Rockefeller University, New York, NY, ⁴Dr. Miriam and Sheldon G. Adelson Educational Campus, Las Vegas, NV, ⁵Tel Aviv University, Reut, Israel

Acceptability of hair collection for drug testing among pregnant women
Victoria Coleman-Cowger¹, Katrina Mark², ¹Battelle Memorial Institute, Baltimore, MD, ²University of Maryland, College Park, MD

Characteristics of participants in a specialty court for commercially sexually exploited girls with substance use and mental health problems
Eraka Bath¹, Lindsey Thompson², Elizabeth Barnert², Mekeila Cook¹, ¹UCLA, Los Angeles, CA, ²UCLA-Pediatrics, Los Angeles, CA

Group prenatal care in a community based substance abuse treatment center
Elizabeth Zadzielski¹, Yukiko Washio², Michelle Drew¹, Gina Scott¹, ¹Christina Care Health System, Newark, DE, ²Christiana Care Health Services/University of Delaware, Media, PA

eClipse: An online portal to facilitate access to evidence-based eHealth treatments for substance use and mental health comorbidity
Sally Hunt¹, Frances Kay-Lambkin², Katherine Mills³, Louise Thornton¹, Maree Teesson¹, ¹University of New South Wales, Sydney, New South Wales, Australia ²University of Newcastle, New Castle, New South Wales, Australia

Honoring our Native American warriors
Anne Skinstad¹, Sean A Bear², ¹University of Iowa, Iowa City, IA, ²University of Iowa College of Public Health, National American Indian and Alaska Native ATTC, Iowa City, IA

Development and validation of an Embodied Conversational Agent to detect problematic use of tobacco and alcohol: Study description
Sarah Moriceau¹, Fuschia Serre¹, Melina Fatseas², Jean-Arthur Micoulaud-Franchi¹, Etienne de Sevin¹, Emilien Bonhomme¹, Pierre Philip¹, Marc Auriacome¹, ¹Université de Bordeaux, Bordeaux, France, ²Centre Hospitalier Charles Perrens, Bordeaux, France
The supera distance-learning course: A ten-year Brazilian experience on training professionals in screening and brief intervention to substance users
Maria Lucia Souza-Formigoni¹, Ana Paula Leal Carneiro¹, Ana Regina Noto², José Carlos Fernandes Galdouro³, ¹Universidade Federal de São Paulo, São Paulo, Brazil, ²Universidade Federal de São Paulo, Department of Psychobiology, São Paulo, Brazil

Personal goal setting: Factors in substance use and academic achievement Michaeła Schippers³, Dominique Morisano², ¹Rotterdam School of Management, Erasmus University, Rotterdam, Netherlands, ²University of Toronto, Toronto, ON, Canada

The effect of medical marijuana laws and regulations on prevalence of marijuana use and cannabis use disorder
Arthur Robin Williams¹, Silvia Martins², Christine Mauro², Frances Levin³, Julian Santaella-Tenorio², ¹Columbia University Division on Substance Use Disorders, New York, NY, ²Columbia University, New York, NY, ³Columbia University and NYSPI, New York, NY

Oral Communications 6

WHEN ONE ISN'T ENOUGH: POLYDRUG USE

Chairs: Johannes Thrul and Linda Cottler

10:00  Marijuana, tobacco, and prescription sedatives: Differences in non-medical, medical, and no use
Verlin Joseph¹, Linda Cottler¹, Catherine Woodstock Striley¹, ¹University of Florida, Gainesville, FL

10:15  Polydrug use among opioid users: Results from the national and local studies
Georgiy Bobashev¹, Lee Hoffer², Kira Tebbe³, ¹RTI International, Research Triangle Park, NC, ²Case Western Reserve University, Cleveland, OH, ³Yale University, New Haven, CT

10:30  Nonmedical prescription tranquilizer use among individuals with opioid use disorder in a nationally representative sample
Victoria Votaw¹, Olivera Bogunovic², R. Kathryn McHugh¹, ¹McLean Hospital, Belmont, MA, ²McLean Hospital, Harvard Medical School, Belmont, MA

10:45  Illicit drug use is associated with increased cigarette smoking among buprenorphine-maintained adults
Maria Parker¹, Taylor Ochalek¹, Stacey Sigmon¹, ¹University of Vermont, Burlington, VT

11:00  Rapid-onset cannabis problems: Excess risk for polydrug users?
Karl Alcover¹, James Anthony¹, ¹Michigan State University, Lansing, MI

11:15  Typologies of female cocaine use rely on transitions from initiation, to first symptom, to heaviest use, by age and comorbid marijuana use
Linda Cottler¹, Yiyang Liu¹, Catherine Woodstock Striley¹, Barry Setlow², Lori Knackstedt¹, ¹University of Florida, Gainesville, FL, ²University of Florida College of Medicine, Gainesville, FL
Differences in co-use of cigarettes with alcohol vs. marijuana among young adults: A daily diary study
Johannes Thrul¹, Noah Gubner¹, Louisa Holmes², Danielle Ramo¹, Pamela Ling¹, ¹UCSF, San Francisco, CA, ²State University of New York at Binghamton, Vestal, NY

Electronic- and clinician-delivered screening, brief intervention, and referral to treatment for women in reproductive healthcare centers: A randomized clinical trial
Steve Martino¹, Steven Ondersma², Ariadna Forray¹, Todd Olmstead³, Heather Howell¹, Kathryn Gilstad-Hayden¹, Trace Kershaw⁴, Kimberly Yonkers¹, ¹Yale University-Psychiatry, New Haven, CT, ²Wayne State University-Psychiatry and Behavioral Neurosciences, Detroit, MI, ³University of Texas at Austin, Lyndon B. Johnson School of Public Affairs, ⁴Yale School of Public Health, New Haven, CT

Oral Communications 7
Verdun
10:00 - 12:00 PM

ADDICTION-INFECTION CONNECTION

Chairs: Kristen McLaurin and Jennifer Havens

10:00 Protracted sex differences in the core components of executive function in the HIV-1 transgenic rat
Kristen McLaurin¹, Rosemarie Booze¹, Charles F Mactutus¹, ¹University of South Carolina, Columbia, SC

10:15 Cocaine use and HIV have independent effects on the neural processing of ambiguous decisions
Andréa L. Hobkirk¹, Bennett W. Hartley¹, Sheri Towe¹, Christina Meade¹, ¹Duke University School of Medicine, Durham, NC

10:30 Respondent-driven sampling as a strategy to increase awareness of hepatitis C infection in stimulant users
Christina Meade¹, Sheri Towe¹, Ehi Ihionkhan¹, ¹Duke University School of Medicine, Durham, NC

10:45 Transience, networks and hepatitis C and HIV risk among young persons who inject drugs
Basmattee Boodram¹, Louis Shekhtman², Anna Hotton³, Alexander Gutfraind⁴, Mary-Ellen Mackesey-Amiti⁵, Carl Latkin⁶, Harel Dahari⁴, ¹University of Illinois, Chicago, IL, ²Bar-Ilan University, Department of Physics, Ramat Gan, Israel, ³University of Illinois, Division of Epidemiology and Biostatistics, Chicago, IL, ⁴Loyola University Medical Center, Division of Hepatology, Maywood, IL, ⁵Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

11:00 The association between cigarette smoking and virologic suppression in HIV-infected substance users
Theresa Winhusen¹, Daniel Feaster², Rui Duan³, Jennifer Brown¹, Lisa Metsch⁴, ¹University of Cincinnati, Cincinnati, OH, ²University of Miami Miller School of Medicine, Miami, FL, ³University of Miami, Miami, FL, ⁴Columbia University, New York, NY
Availability of HIV-related services in buprenorphine treatment: Data from a national survey
Hannah Knudsen¹, Michelle Lofwall², Sharon Walsh¹, Jamie Studts¹, Jennifer Havens³, ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Medicine, Lexington, KY, ³University of Kentucky College of Medicine, Lexington, KY

Assessment of the behavioral intervention “Steps towards Health” for HIV-positive persons who inject drugs in Ukraine
Tetiana Kiriazova¹, Yuliia Sereda², Roman Yorick³, Inna Shvab³, Sergii Dvoria³, ¹Ukrainian Institute on Public Health Policy, Kiev, Ukraine, ²Ukrainian Institute on Public Health Policy, Kiev, Ukraine, ³USAID RESPOND Project, Pact Inc., Kyiv, Ukraine

Naltrexone implant, compared to oral naltrexone, improves HIV treatment outcomes of opioid-addicted patients
Evgeny Krupitsky¹, Edwin Zvartau², Elena Blokhina³, Elena Vladimirovna Verbitskaya³, Dmitry Liozno³, Tatyana Yaroslavtseva³, Vladimir Palatkin³, Maryia Vetrova³, Natalia Bushara³, Andrey Burakov³, Dmitry Masalov³, Olga Mamontova³, Sabrina Poole⁴, Robert Gross⁴, George Woody⁴, ¹St. Petersburg Bekhterev Research Psychoneurological Institute, St.-Peterburg, Russia, Russian Federation, ²First Pavlov State Medical University of St. Petersburg, St. Petersburg, Russia, Russian Federation, ³First Pavlov State Medical University of St. Petersburg, St. Petersburg, Russia, ⁴University of Pennsylvania, Philadelphia, PA

Symposium IV
Westmount
10:00 - 12:00 PM

BRAIN RECOVERY IN ADDICTION: FROM BIOMARKERS TO FUNCTIONAL OUTCOMES

Chairs: Rajita Sinha and Carlos Blanco

10:00 Functional recovery in neural substrates underlying aversive interception and allostasis in substance use disorders
M. Paulus, Laureate Institute for Brain Research; UCSD Psychiatry, Tulsa, OK

10:25 Recovery of the neural substrates of iRISA (impairments in response inhibition and salience attribution) in cocaine addiction
R. Goldstein, Icahn School of Medicine at Mount Sinai, New York, NY

10:50 Structural and functional brain changes associated with improved cognitive control in abstinence from substance use disorders
H. Garavan, University of Vermont, Burlington, VT

11:15 Substance use recovery in neural stress and drug craving circuitry: Relations to clinical outcomes
R. Sinha, Yale School of Medicine, New Haven, CT

11:40 DISCUSSANT: Identifying brain recovery biomarkers to impact precision medicine in addition
N. Volkow, NIDA, Bethesda, MD
Monday, June 19, 2017

Symposium V  
Outremont  
10:00 - 12:00 PM

INFORMING TOBACCO PRODUCT REGULATORY POLICIES THROUGH ADDICTION-RELATED RESEARCH

Chairs: Jennifer Naylor and Lynn Hull

10:00  Investigating the abuse liability of tobacco product constituents in nonhuman primates  
A. Goodwin, U.S. Food and Drug Administration - National Center for Toxicological Research, Jefferson, AR

10:25  Translational behavioral neuroimaging model of nicotine dependence  
E. Stein, NIDA Intramural Research Program, Baltimore, MD

10:50  Modulation of nicotine perception and use profiles by flavorants  
E. DeVito, Yale School of Medicine, New Haven, CT

11:15  Behavioral economics to inform tobacco policy, from lab to marketplace  
M. Koffarnus, Virginia Tech Carilion Research Institute, Roanoke, VA

11:40  DISCUSSANT: How can addiction-related research inform CTP's regulatory decisions?  
K. Jackson, U.S. Food and Drug Administration - Center for Tobacco Products, Silver Spring, MD

Policy Forum  
Westmount  
12:15 - 1:45 PM

Chairs: Martin Iguchi and William Dewey

Update of activities and accomplishments of Friends of NIDA - Report from Capitol Hill  
W. Dewey, Virginia Commonwealth University, Richmond, VA

Implications for NIDA’s research portfolio  
E. Long, Van Scoyoc Associates, Washington, DC

Treatment instead of incarceration: Police-assisted addiction recovery initiatives in Gloucester and 150 other communities: First-year experience  
D. Rosenblum, Boston University School of Medicine and Public Health, Department of Health Law, Policy & Management, Boston, MA

Naloxone and good samaritan laws in two New England states: Impacts on law enforcement and opioid consumers  
T. Green, Boston University School of Medicine, Boston, MA

Prescription drug monitoring programs: Of law enforcement or public health?  
L. Beletsky, Northeastern University School of Law & Bouve College of Health Sciences, Boston, MA
CHAUD, CHAUD, CHAUD: NOVEL TREATMENT STRATEGIES

Chairs: Eric Maltbie and Sandra Comer

2:00  
*JPC-089, a 1,4-diphenethyl substituted piperidine, inhibits the neurotoxic, psychomotor stimulant and reinforcing effects of methamphetamine*  
Justin Nickell¹, Arlington Wilson¹, Emily Denehy¹, John Culver¹, Venumadhav Janganati², Peter Crooks², Michael Bardo¹, Linda Dwoskin¹, ¹University of Kentucky, Lexington, KY, ²University of Arkansas for Medical Sciences, Little Rock, AR

2:15  
*Suvorexant, a clinically available hypocretin/orexin receptor antagonist, attenuates positive affect and drug seeking associated with psychostimulant self-administration in rats*  
Steven Simmons¹, Helene Philogene², Rose Martorana¹, Lili Mo¹, Fionya Tran¹, Taylor Gentile¹, Scott Rawls², John Muschamp¹, ¹Lewis Katz School of Medicine, Temple University Philadelphia, PA, ²Temple University, Philadelphia, PA

2:30  
*Effects of BU08028, a mixed mu and nociceptin/orphanin FQ peptide receptor agonist, on alcohol drinking in rhesus monkeys*  
Paul Czoty¹, Phillip Epperly¹, April Davenport¹, Mei-Chuan Ko², Stephen Husbands³, James Daunais¹, Shawn Flynn¹, ¹Wake Forest School of Medicine, Winston-Salem, NC, ²University of Michigan, Ann Arbor, MI, ³University of Bath, Bath, UK

2:45  
*Investigating the effects of ketamine treatment on reinstatement of cocaine self-administration in rhesus monkeys*  
Eric Maltbie¹, Leonard Howell¹, ¹Emory University, Atlanta, GA

3:00  
*Reduction of smoking urges with intranasal insulin: A randomized, crossover, placebo-controlled clinical trial*  
A. Hamidovic, University of Illinois, Chicago, IL

3:15  
*Effects of pioglitazone, a PPARγ agonist, on the subjective and reinforcing effects of tobacco cigarettes*  
Suky Martinez¹, Jermaine Jones², Sandra Comer³, Adam Bisaga³, ¹Columbia University Medical Center, New York State Psychiatric Institute, New York, NY, ²Columbia University College of Physicians and Surgeons, New York, NY, ³Columbia University and NYSPI, New York, NY

3:30  
*Effects of ibudilast on subjective, reinforcing and analgesic effects of oxycodone and drug craving in recently detoxified adults with opioid dependence*  
Verena Metz¹, Jermaine Jones², Jeanne Manubay³, Maria Sullivan⁴, Shanthi Mogali¹, Andrew Segoshi³, Gabriela Madera³, Kirk Johnson⁶, Sandra Comer¹, ¹Columbia University and NYSPI, New York, NY, ²Columbia University College of Physicians and Surgeons, New York, NY, ³Columbia University, New York, NY, ⁴Alkermes, Inc., Waltham, MA, ⁵New York State Psychiatric Institute, New York, NY, ⁶Xoma Corporation, Berkeley, CA
A Phase III outpatient randomized, double-blind, double-dummy controlled trial evaluating efficacy of CAM2038 (weekly and monthly buprenorphine FluidCrystal® injection depot) for opioid use disorder
Michelle Lofwall¹, Edward Nunes², Genie Bailey³, Sharon Walsh⁴, Stacey Sigmon⁵, Fredrik Tiberg⁶, Margareta Linden⁷, Behshad Sheldon⁸, Sonnie Kim⁸, ¹University of Kentucky College of Medicine, Lexington, KY, ²Columbia University and NYSPI, New York, NY, ³Warren Alpert Medical School of Brown University, Providence, RI, ⁴University of Kentucky, Lexington, KY, ⁵University of Vermont, Burlington, VT, ⁶Camurus, Lund, Sweden, ⁷Camurus, Lund, Sweden, ⁸Braeburn Pharmaceuticals, Princeton, NJ

Oral Communications 9
Verdun
2:00 - 4:00 PM

TRAUMA, VIOLENCE AND ADDICTION

Chairs: Therese Killeen and Gregory Homish

2:00 Trauma, substance use, and mental health problems among homeless veteran parents in Los Angeles: Lessons in stress and resilience
Roya Ijadi-Maghsoodi¹, Sophie Feller², Gery Ryan³, Sheryl Kataoka², Donna Washington⁴, Lisa Altman⁵, Lillian Gelberg⁶, ¹UCLA, Los Angeles, CA, ²Semel Institute for Neuroscience and Human Behavior (UCLA), Los Angeles, CA, ³RAND Corporation, Arlington, VA, ⁴VA Greater Los Angeles Healthcare System, Santa Fe Springs, CA, ⁵UCLA Family Medicine, Los Angeles, CA

2:15 Combat exposure, emotional and physical role limitations, and substance use among male reserve soldiers
Rachel Hoopsick¹, D. Lynn Homish¹, Gregory Homish¹, ¹State University of New York at Buffalo, Buffalo, NY

2:30 Association between PTSD symptom severity, mindfulness and emotional regulation
Therese Killeen¹, Nathaniel Baker¹, Caroline Vrana¹, Victoria Brant¹, ¹Medical University of South Carolina, Charleston, SC

2:45 Childhood traumatic experience and criminal justice involvement among women: Evaluating mediation by drug use and depression
Joy Scheidell¹, Christopher Frueh², Maria Khan¹, ¹New York University School of Medicine, New York, NY, ²University of Hawaii at Hilo, Hilo, Hawaii

3:00 Trauma exposure, sex and stress responding among cannabis smokers Thomas Chao¹, Vanja Radoncicic², Denise Hien², Gillinder Bedi¹, Margaret Haney⁴, ¹New York State Psychiatric Institute, New York, NY, ²Adelphi University, Garden City, NY, ³Columbia University, New York, NY, ⁴Columbia University Medical Center, New York, NY

3:15 The self and susceptibility: The role of the medial prefrontal cortex in addiction comorbidity
Bradford Martins¹, Ricardo Caceda¹, Josh Cisler², G. Andrew James¹, Clinton Kilts¹, ¹University of Arkansas for Medical Sciences, Little Rock, AR, ²University of Wisconsin-Madison, Madison, WI
Monday, June 19, 2017

3:30  
Age trajectories of the association between violence exposure and past-30-day substance use  
Jason Goldstick¹, Justin Heinzie¹, Sarah Stoddard¹, Rebecca Cunningham¹, Marc Zimmerman¹, ¹University of Michigan, Ann Arbor, MI

3:45  
The relationship between hazardous alcohol use and violence among street-involved youth  
Nadia Fairbarin¹, Evan Wood¹, Huiru Dong², Sabina Dobrer³, Thomas Kerr², Kora DeBeck³, ¹University of British Columbia, Vancouver, BC, Canada, ²University of British Columbia, Vancouver, BC, ³BC Centre for Excellence in HIV/AIDS, Vancouver, BC, ⁴British Columbia Centre for Excellence in HIV/AIDS, Vancouver, BC

Oral Communications 10  
Outremont  
2:00 - 4:00 PM

THE CHANGING LANDSCAPE: HEALTH AND POLICY

Chairs: Samuel Friedman and Lilian Ghandour

2:00  
Assessing the impacts of minimum legal drinking age laws on police-reported criminal victimization in Canada from 2009-2013  
Claire Benny¹, Jodi Gatley¹, Marcos Sanches², Russell Callaghan³, ¹University of Northern British Columbia, Prince George, BC, ²Centre for Addiction and Mental Health, Toronto, ON, ³Northern Medical Program, Prince George, BC, Canada

2:15  
Social causation and neighborhood selection processes underlie associations among neighborhoods, social networks and illicit drug use among adults relocating from public housing  
Sabriya Linton¹, Danielle Haley², Josalin Hunter-Jones¹, Zev Ross³, Hannah Cooper¹, ¹Emory University, Atlanta, GA, ²University of North Carolina at Chapel Hill, Chapel Hill, NC, ³ZevRoss Spatial Analysis

2:30  
Research on determinants of service provision for people who use drugs  
S. Friedman, National Development and Research Institute, Inc., New York, NY

2:45  
Modelling youths’ demand and ethanol intake responsiveness to alcohol taxes using Discrete Choice Experiment  
Lilian Ghandour¹, Ali Chalak², Nasser Yassin², Rima Nakkash², Sirine Anouti², Rima Afifi², ¹American University of Beirut, Beirut, Lebanon, Lebanon, ²American University of Beirut, Beirut, Lebanon

3:00  
Social determinants of recovery from substance abuse among justice-involved community members  
Linda Kahn¹, Bonnie Vest¹, Diane Berdine¹, Robert Granfield¹, Gregory Homish¹, ¹State University of New York at Buffalo, Buffalo, NY

3:15  
Medical marijuana laws and sedative/hypnotic overdose mortality in the United States  
Stephanie Peglow¹, Marilyn Stoler², William Becker², ¹Eastern Virginia Medical School and Yale University, Stamford, CT, ²Yale University, New Haven, CT
Monday, June 19, 2017

3:30  
**Impact of mandatory minimum sentencing on crack and powder cocaine use**  
Lauryn Walker¹, Briana Mezuk¹, ¹Virginia Commonwealth University, Richmond, VA

3:45  
**Behavioral health provider network structures and adequacy standards in private health plans**  
Maureen Stewart¹, Constance Horgan², Sharon Reif², Deborah Garnick¹, Brooke Evans¹, Timothy Creedon¹, ¹Brandeis University, Waltham, MA, ²Brandeis University, Heller School for Social Policy and Management, Waltham, MA

**Symposium VI**  
**Westmount**  
2:00 - 4:00 PM

**SEX AS A BIOLOGICAL VARIABLE: RESEARCH FINDINGS FROM NIH OFFICE OF RESEARCH ON WOMEN’S HEALTH AND NIDA CENTER GRANTS – AHEAD OF ITS TIME OR LONG OVERDUE?**

Chairs: Cora Lee Wetherington and Sherry McKee

2:00  
*Beyond mice and men: Innovations in translational sex and gender-sensitive tobacco treatment development*
S. McKee, Yale School of Medicine, New Haven, CT

2:25  
*The stress – addictions relationship: A focus on sex/gender differences*
K. Brady, Medical University of South Carolina, Charleston, SC

2:50  
*Treatments to reduce impulsivity decrease incubation of cocaine and nicotine craving and relapse in rats: Sex differences*
M. Carroll, University of Minnesota, Minneapolis, MN

3:15  
*Sex as a biological variable in addiction research*
J. Becker, University of Michigan, Ann Arbor, MI

3:40  
**DISCUSSANT: Sex as a biological variable we all knew about, but ignored**
R. Foltin, Columbia University Medical Center, New York, NY

**Marian W. Fischman Memorial Award Lecture**  
**Westmount/Outremont**  
4:15 - 5:15 PM

Presentation of the Marian W. Fishman Award to Sharon Walsh

Introduction by Michelle Lofwall

Lecture: *Opioid Euphoria and Dysphoria: A Tale of Two Cities*
Sharon L. Walsh

**Student/Trainees Mixer**  
**Salon Bonaventure**  
5:15 - 6:45 PM
100 National Institute on Drug Abuse International Program: Promoting diplomacy and addiction research
S. Gust\textsuperscript{1}, J. McCormally\textsuperscript{2}. \textsuperscript{1}National Institute on Drug Abuse International Program, United States; \textsuperscript{2}National Institute on Drug Abuse International Program Contractor Staff, United States

101 The 4th Africa and Middle East Congress on Addiction: Research outreach and capacity-building activities
M. al’Absi\textsuperscript{1}, S. El Mhamdi\textsuperscript{2}. \textsuperscript{1}University of Minnesota, United States; \textsuperscript{2}University of Monastir, Tunisia

102 Public availability of raw data in articles published in journals indexed in the Journal Citation Reports substance abuse category
R. Aleixandre-Benavent\textsuperscript{1,2}, F.J. Bueno-Canigral\textsuperscript{3}, A. Vidal-Infer\textsuperscript{4}. \textsuperscript{1}Ingenio, Spain; \textsuperscript{2}Universitat de Valencia-Consejo Superior de Investigaciones Científicas, Spain; \textsuperscript{3}Plan Municipal de Drogodependencias, Ajuntament de Valencia, Regidoria de Sanitat, Salut i Esports, Spain; \textsuperscript{4}Departamento de Historia de la Ciencia y Documentacion, Universidad de Valencia, Spain

103 Addiction medicine for medical staff in the National Institute of Neurology and Neurosurgery in Mexico City: Pilot course
M. Azcarraga-Quiza\textsuperscript{1,2}, P. Leon-Ortiz\textsuperscript{1}. \textsuperscript{1}National Institute of Neurology and Neurosurgery, Mexico; \textsuperscript{2}Virginia Commonwealth University, United States

104 Analysis of scientific subjects over consumption of addictive substances and road safety
F.J. Bueno-Canigral\textsuperscript{1}, D. Melero-Fuentes\textsuperscript{2}, R. Aleixandre-Benavent\textsuperscript{3,4}, J-C. Valderrama-Zurian\textsuperscript{5}. \textsuperscript{1}Plan Municipal de Drogodependencias, UPCCA, Ajuntament de Valencia, Regidoria de Sanitat, Salut i Esports, Spain; \textsuperscript{2}Institute of Documentation and Information Technologies, Catholic University of Valencia, Spain; \textsuperscript{3}Ingenio, Spain; \textsuperscript{4}Universitat de Valencia-CSIC, Spain; \textsuperscript{5}Departamento de Historia de la Ciencia y Documentacion, Universidad de Valencia, Spain

105 An alternative to prohibition and commercialization of cannabis: The experience of Uruguay
M.E. Cabrera\textsuperscript{1,2}, J.R. Koch\textsuperscript{3}. \textsuperscript{1}Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States; \textsuperscript{2}National Drug Board of Uruguay, Uruguay; \textsuperscript{3}Virginia Commonwealth University, United States

106 Management of substance use problems among children and adolescents in Iran
M. Chawarsi\textsuperscript{1}, H.R. Fathi\textsuperscript{2}. \textsuperscript{1}Yale University School of Medicine, United States; \textsuperscript{2}Addiction Studies Department, School of Advanced Medical Technologies, Tehran University of Medical Sciences, Iran

107 Increased smoking and reduced well-being following missile attacks in Israeli youth
P. Findley\textsuperscript{1}, I. Pruginin\textsuperscript{2}, R. Isralowitz\textsuperscript{3}. \textsuperscript{1}Rutgers University, United States; \textsuperscript{2}Regional Alcohol and Drug Abuse Research Center, Ben Gurion University, Israel
108 Addiction education in Thai medical schools
W. Jiraporncharoen, S. Lkhitsathian, C. Angkurawaranon, A. Aramrattana. Chiang Mai University (CMU), Thailand; Substance Abuse and Mental Health Services Administration-University of California Los Angeles-CMU Southeast Asia HIV-Addiction Technology Transfer Center, Thailand

109 The Hubert H. Humphrey Fellowship Program at Virginia Commonwealth University
J.R. Koch, R.L. Balster, A. Breland, W.L. Kliwer. Virginia Commonwealth University, United States

110 The International Society of Substance Use Professionals
J.T. Lee. The International Society of Substance Use Prevention and Treatment Professionals, United Kingdom

111 The Virginia Commonwealth University Hubert H. Humphrey Fellowship in Substance Abuse Prevention, Treatment and Policy: One year follow-up assessment
O. Leonchuk1, J.R. Koch2, R.L. Balster2, A. Breland2. 1North Carolina State University, United States; 2Virginia Commonwealth University, United States

112 Emerging viral pathways among drug-using populations: Future directions of scientific studies
C. McCoy1, A.J. McCoy Bengoa1, B. Hayden2, H.V. McCoy3, D. McBride4, S. Puri1, P. Shapshak5. 1University of Miami, United States; 2Banyan Health, United States; 3Florida International University, United States; 4Andrews University, United States; 5University of South Florida, United States

113 Face-to-face and virtual training programs to address late diagnosis of HIV among people who use drugs in Argentina
D. Rossi, P. Cymerman, P. Goltzman, M.P. Pawlowicz, G. Touze. Intercambios Civil Association, Argentina; University of Buenos Aires, Argentina

114 Indonesia policy review of people who inject drugs and HIV
R. Sarasvita1,2, H. Susami2,3, D. Utami1,3, S. Rose4, D.S. Metzger5. 1Indonesia National Narcotics Board, Indonesia; 2HPTN 074 Indonesia Site–Cipto Mangunkusumo Hospital, Indonesia; 3Abhipraya Foundation, Indonesia; 4FHI 360, HIV Prevention Trials Network, United States; 5Treatment Research Institute, University of Pennsylvania, United States

Basic Science

200 Acute and residual effects of cannabis on simulated driving performance of young adults
Bruna Brands1,2, Robert Mann1,3, Bernard Lefoll1,3, Gina Stoduto3, Christine Wickens3, Marilyn Huestis4. 1University of Toronto, Canada; 2Health Canada, Canada; 3Centre for Addiction and Mental Health, Canada; 4University of Maryland School of Medicine, United States

201 Recovery and withdrawal after suspending chronic toluene exposure in adolescent rats
S. Cruz1, V. Nava-Rodriguez1, M-T. Rivera-Garcia1,2, C. Lopez-Rubalcava1. 1Department of Pharmacobiology, Cinvestav, Mexico; 2Department of Basic Science, Oregon Health & Science University, United States

202 Hepatotoxicity and nephrotoxicity induced by solvent inhalants
Alaaeldin Elkoussi. Assiut College of Medicine, Egypt

203 Discriminative stimulus effects of cocaine in rats: Training via the oral route of administration
C. Froger-Colleaux, S. Paillard, K. Davoust, V. Castagne. Porsolt, France
204 Greater impact on brain volume change in chronic ketamine users with adolescent onset
C-C. Hung\textsuperscript{1,2}, T. Szu-Hsien Lee\textsuperscript{3}, C-C. Huang\textsuperscript{4}, C-Po Lin\textsuperscript{4,5}, Y-S. Liu\textsuperscript{4}, C-S.R. Li\textsuperscript{6}, J-R. Duann\textsuperscript{7}
\textsuperscript{1}Institute of Brain Science, National Yang Ming University, Taiwan; \textsuperscript{2}Bali Psychiatry Center, Ministry of Health and Welfare, Taiwan; \textsuperscript{3}Department of Health Promotion and Education, National Taiwan Normal University, Taiwan; \textsuperscript{4}Brain Connectivity Lab, National Yang Ming University, Taiwan; \textsuperscript{5}Institute of Neuroscience, National Yang Ming University, Taiwan; \textsuperscript{6}Departments of Psychiatry and Neuroscience, Yale University School of Medicine, United States; \textsuperscript{7}China Medical University, Biomedical Engineering Research and Development Center, Taiwan

205 Using portable imaging to determine marijuana intoxication in humans
H.O. Keles, J. Gilman, S. Sobolewski, M. Radoman, G. Pachas, A.E. Evins. Massachusetts General Hospital, United States

206 Acute effects of cannabis on verbal memory in young adults: Relationship to tobacco use
J. Matheson\textsuperscript{1,2}, R. Mann\textsuperscript{1,2}, B. Lefoll\textsuperscript{1,2}, G. Stoduto\textsuperscript{2}, C. Wickens\textsuperscript{2}, M. Huestis\textsuperscript{3}, B. Brands\textsuperscript{1,2}
\textsuperscript{1}University of Toronto, Canada; \textsuperscript{2}Centre for Addiction and Mental Health, Canada; \textsuperscript{3}University of Maryland School of Medicine, United States

207 Influence of nicotinic receptor gene—CHRNA5—on crack cocaine dependence and severity
J. Schuch\textsuperscript{1,2}, A. Aroche\textsuperscript{2}, D.L. Rovaris\textsuperscript{3}, A. Stolf\textsuperscript{3}, T. Roman\textsuperscript{2}, B. Sanvicente-Vieira\textsuperscript{4}, E. Vitola\textsuperscript{5}, E. Grever\textsuperscript{5}, F. Pechansky\textsuperscript{1}, F. Kessler\textsuperscript{3,5}, L. von Diemen\textsuperscript{3}, R. Grassi-Oliveira\textsuperscript{4}, C. Bau\textsuperscript{2}
\textsuperscript{1}Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul (UFRGS), Brazil; \textsuperscript{2}Department of Genetics, UFRGS, Brazil; \textsuperscript{3}Center for Drug and Alcohol Research, Hospital de Clinicas de Porto Alegre, UFRGS, Brazil; \textsuperscript{4}Pontifical Catholic University of Rio Grande do Sul, Brazil; \textsuperscript{5}Department of Psychiatry and Legal Medicine, UFRGS, Brazil

208 Gambling-induced stimulant craving in regular stimulant users: A cross-priming study
S. Stewart\textsuperscript{1}, Z. Ghaferi\textsuperscript{1}, P. Collins\textsuperscript{1}, M. Cowie\textsuperscript{1}, M. Zack\textsuperscript{2}, B. Horiachka\textsuperscript{3}, D. McGrath\textsuperscript{3}
\textsuperscript{1}Dalhousie University, Canada; \textsuperscript{2}Centre for Addiction and Mental Health, Canada; \textsuperscript{3}University of Calgary, Canada

209 The regulatory role of trace amine-associated receptor 1 in acute and chronic effects of nicotine
I. Sukhanov\textsuperscript{1}, A. Dolgorukova\textsuperscript{1}, A. Dorotenko\textsuperscript{1}, M. Dorofeikova\textsuperscript{1}, R. Gainetdinov\textsuperscript{2}, E. Zvartau\textsuperscript{1}. \textsuperscript{1}First Pavlov State Medical University, Russia; \textsuperscript{2}Saint Petersburg State University, Russia

210 Low insula glutamate/glutamine in chronic methamphetamine users: Association with depressive symptoms
J. Tang\textsuperscript{1,2}, J. O’Neill\textsuperscript{2}, J.R. Alger\textsuperscript{2}, E.D. London\textsuperscript{2}. \textsuperscript{1}Mental Health Institute, the Second Xiangya Hospital of Central South University, China; \textsuperscript{2}David Geffen School of Medicine, University of California Los Angeles, United States

211 Assessment of oxidative DNA damage among adolescent inhalant users seeking treatment at a tertiary care centre
A. Verma, R. Jain, A. Dhawan, R. Lakshmy, R. Raghav. All India Institute of Medical Sciences, India
Epidemiology

300 Impact of legal highs on HIV vertical transmission in female injection drug users in Romania
A. Abagiu1,2, A. Koulosousas2, L. Stoica1, C. Blaga1, F. Duna1, C. Petre1, R. Ungurianu1, M. Mardarescu1,2, A.M. Tudor1,4, M. Mitran5, A. Streinu-Cercel1,4. 1National Institute for Infectious Diseases Prof. Dr. Matei Bals, Romania; 2Romanian Association Against AIDS, Romania; 3European Centre for Disease Prevention and Control, Sweden; 4Carol Davila University of Medicine and Pharmacy, Romania; 5Panait Sarbu Maternity Hospital, Romania

301 Gender differences in tramadol use and abuse in university students, Egypt
M. Abdelghan, G. Salah El-deen, M. Bassiouny. Zagazig University, Egypt

302 Khat use and the occurrence of psychotic symptoms: Suggestive evidence for a mediating role of traumatic experiences

303 Characteristic trends in prevalence of synthetic designer drugs over the Territory of the Republic of Bashkortostan
E. Akhmetova, A. Azat. Bashkir State Medical University, Russia

304 Prevalence of simultaneous polydrug use and associated factors in first-year and last-year students from different areas of study at Universidad Politécnica de Nicaragua, Recinto Universitario Regional Esteli, Nicaragua, 2016

305 Risk of hepatitis C infection among heroin and methamphetamine users
Z. Alexandercikova, L. Okruhlica. Center for Treatment of Drug Dependencies, Slovakia

306 Prescription painkiller misuse and labor market: Misuse levels and differential effects
P. Alexandre, V. Paz. Health Administration, College of Business, Florida Atlantic University, United States

307 Substance abuse in Iraq: Psychiatrists’ experience
R. Aqrawi. Ministry of Health–Kurdistan Region, Iraq

308 Substance use in Jamaican 12- to 65-year-olds
U. Atkinson1, N. Younger-Coleman2, P. Clarke3, M. Hynes3. 1National Council on Drug Abuse, Jamaica; 2University of the West Indies–Mona, Jamaica; 3Organization of American States, United States

309 National survey on crack cocaine, Brazil, 2013
F. Bastos1, C. Coutinho1, N. Bertoni3. 1Oswaldo Cruz Foundation, Brazil; 2Brazilian National Cancer Institute, Brazil

310 Relationship between psychopathy and HIV risk behaviors among heroin and amphetamine users
K. Bozgunov1, E. Psederska1, G. Vasilev1, D. Nedelchev1, J. Vassileva2. 1Bulgarian Addictions Institute, Bulgaria; 2Virginia Commonwealth University, United States

311 Severity of dependence scale: Diagnostic cut-off for pharmaceutical opioid dependence
R. Bruno1,2, A. Peacock1,2, B. Larance2, N. Lintzeris3, R. Ali4, L. Degenhardt2. 1Department of Psychology, University of Tasmania School of Medicine, Australia; 2National Drug and Alcohol Research Centre, The University of New South Wales, Australia; 3Sydney University Medical School, Australia; 4The University of Adelaide, Australia
312 Patient concerns and help-seeking for problems with opioid medications for chronic noncancer pain

313 Association between Internet addiction and sleep quality among college students in Taiwan
Y-J. Chang. National Taiwan Normal University, Taiwan

314 Using Twitter for monitoring marijuana use and perceptions in Chile: An online approach to get real-time national data
V. Cortes1, C. Ibanez2, J. Velasquez1, 1Department of Industrial Engineering, University of Chile, Chile; 2Department of Psychiatry and Mental Health, University of Chile, Chile

315 Point prevalence and respective 95% confidence intervals for HIV and hepatitis C virus infection among crack cocaine and similar substances in Brazil (2012–2013)
C. Coutinho1, L. Toledo1, N. Bertoni2, F. Bastos1. 1Oswaldo Cruz Foundation, Brazil; 2Brazilian National Cancer Institute, Brazil

316 Self-reported driving beliefs and practices of medical and recreational cannabis users in the United States
C. Cuttler1, M. Sexton2,3, L. Mischley4. 1Washington State University, United States; 2University of California San Diego, United States; 3Center for the Study of Cannabis and Social Policy, United States; 4Bastyr University Research Institute, United States

317 The global burden of disease attributable to substance use and dependence: Findings from the 2015 global burden of disease study
L. Degenhardt1, J. Leung2,3,4, A. Ferrari2, H. Erskine2, F. Charlson2, D. Santomauro2, H. Whiteford2, W. Hall5, T. Vos4. 1National Drug and Alcohol Research Centre, The University of New South Wales, Australia; 2The University of Queensland School of Public Health, Australia; 3Policy and Epidemiology Group, Queensland Centre for Mental Health Research, Australia; 4Institute for Health Metrics and Evaluation, University of Washington, United States; 5Centre for Youth Substance Abuse Research, The University of Queensland, Australia

318 Prevalence of substance use and attachment dimensions among Czech adolescent girls in residential care
P. Dolezalova. National Institute of Mental Health, Czech Republic

319 The opioid epidemic in Canada: Trends in diversion of commonly abused prescription drugs in Ontario
O. Dziadkowiec1, M-C. Lelait1, Z. Margolin1, T. Rosen1, J. Green2, R. Dart2, S. Kurtz3. 1Rocky Mountain Poison and Drug Center, United States; 2Canadian Consumer Product and Pharmaceutical Safety, Inc., Canada; 3Center for Applied Research on Substance Use and Health Disparities, Nova Southeastern University, United States

320 Association between prenatal exposure to cannabis and child behavior: A multi-informant approach
H. El Marroun1, I. Franken2, F. Verhulst1, H. Tiemeier3. 1Erasmus University Medical Center (Erasmus MC), Sophia Children’s Hospital, The Netherlands; 2Erasmus University Rotterdam, The Netherlands; 3Erasmus MC, The Netherlands
321 Assessment of exclusive and dual cigarette and hookah smoking among a sample of pregnant women in Egypt
O. El Shahawy1,2, K. Labib3, E. Mead4, A. Naghib3, S. Sherman1,2, C. Oncken4. 1New York University School of Medicine, United States; 2Public Health Research Center, New York University–Abu Dhabi, United Arab Emirates; 3Ain Shams University, Egypt; 4University of Connecticut, United States

322 Prevalence of personality disorders in parents of patients with substance dependence disorder
M. Elhamshary1,2, D. Radwan2,3, A. Haroun El Rasheed2. 1Psychological Medicine Hospital, Egypt; 2Ain Shams University, Egypt; 3National Research Center–Abu Dhabi, United Arab Emirates

323 Global prevalence of illicit and prescription opioid misuse
J. Ellerstrand1, J. Leung1,2,3, A. Ferrari1,2,3, H. Whiteford1, L. Degenhardt1,4. 1School of Public Health, The University of Queensland, Australia; 2Policy and Epidemiology Group, Queensland Centre for Mental Health Research, Australia; 3Institute for Health Metrics and Evaluation, University of Washington, United States; 4National Drug and Alcohol Research Centre, The University of New South Wales, Australia

324 Khat use among mothers at Harar City and its effect on mental health, stress, anxiety, and commitment to parental role
T. Feyissa. Ambo University, Ethiopia; Addis Ababa University, Ethiopia

325 The Network for the Improvement of Addiction Treatment (NIATx): Ukraine’s experience
T. Fomenko1, A. Mazhnaya1,2, A. Meteliuk1. 1ICF Alliance for Public Health, Ukraine; 2Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health, United States

326 Patterns of cannabis use in patients admitted for addiction treatment in Spain
F. Fonseca1,2, M. Torrens1,2, M. Ferre1,2,3, K. McBride4, I. Maremmani5,6, M. Guareschi6, J. Green4, R. Dart4,7. 1Institut de Neuropsiquiatria i Addiccions, Hospital del Mar and Institut Hospital del Mar d’Investigacions Mèdiques, Spain; 2Universitat Autònoma de Barcelona, Spain; 3Germans Trias University I Pujol Hospital, Institute for Health Science Research Germans Trias i Pujol, Spain; 4Rocky Mountain Poison and Drug Center, United States; 5Department of Neurosciences, Santa Chiara University Hospital, University of Pisa, Italy; 6Association for the Application of Neuroscientific Knowledge to Social Aims, Italy; 7University of Colorado-Denver School of Medicine, United States

327 The interplay between trajectories of drug injecting and housing instability over a 12-month period among people who inject drugs
E. Fortier1,2, M-P. Sylvestre2, A.A. Artenie2, D. Jutras-Aswad2, E. Roy3,4, J. Grebely5, J. Bruneau2. 1Department of Family and Emergency Medicine, Faculty of Medicine, Université de Montréal, Canada; 2Centre Hospitalier de l’Université de Montreal Research Center, Canada; 3Université de Sherbrooke, Canada; 4Institut National de Santé Publique du Québec, Canada; 5Kirby Institute, The University of New South Wales, Australia

328 Factors associated with the history of drug use among female sex workers in India
C.J.K. Francis. Nestle India Limited, India

329 Smokeless tobacco use and low-birth-weight children among women in a rural setting of Chennai, India
D.L. Francis. Tamil Nadu Dr. M.G.R. Medical University, India
330 Consults to an addiction unit in a tertiary hospital
D. Fuster1,2, X. Garcia1,2, Y. Zuluaga1,2, J. Tor1,2, A. Sanvisens1,2. 1Internal Medicine Department, Germans Trias University i Pujol Hospital, Spain; 2Universitat Autonoma de Barcelona, Spain

331 Traumatic events in childhood and drug abuse: A systematic review and meta-analysis of longitudinal studies
S. Halpern1, F. Schuch1, A. Sordi1, J. Scherer2, M. Pachado1, L. Fara1, C. Dalbosco1, F. Pechansky2, F. Kessler2,3, L. von Diemen2. 1Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul (UFRGS), Brazil; 2Center for Drug and Alcohol Research, Hospital de Clinicas de Porto Alegre, UFRGS, Brazil; 3Department of Psychiatry and Legal Medicine, UFRGS, Brazil

332 Iranian university students’ knowledge, attitude, and behavior study on drug abuse, role of resilience, and emotional health
H. Hoseyny1, S. Momtazi2,3, M. Ayubi2, F. Taremian4, S. Mazloomzadeh2,3. 1Iran University of Medical Sciences, Iran; 2Zanjan University of Medical Sciences, Iran; 3Social Determinants of Health Research Center, Iran; 4Addiction Research Center, University of Welfare Sciences, Iran

R. Isralowitz, A. Reznik. Ben Gurion University, Regional Alcohol and Drug Abuse Research Center, Israel

334 Drug use patterns, risk behavior, and psychosis in ketamine users
L. Jia-Jin1, L. Chiang-shan2, Z. Sheng2, C-C. Hung3, T. Szu-Hsien Lee1. 1National Taiwan Normal University, Taiwan; 2Yale University School of Medicine, United States; 3Institute of Brain Science, National Yang Ming University, Taiwan

335 Psychosocial interventions for reducing marijuana smoking by pregnant women
B. Kariuki. Teenagers Plus Community-Based Organization, Kenya

336 Female crack users: High rates of social vulnerability in Brazil
F. Kessler1,2, T. Vernaglia3, M. Siqueira4, T. Leite3, S. Faller5, F. Pechansky5, F. Sudbrack6, M. Cruz3. 1Department of Psychiatry and Legal Medicine, Federal University of Rio Grande do Sul (UFRGS), Brazil; 2Center for Drug and Alcohol Research (CPAD), Hospital de Clinicas de Porto Alegre, UFRGS, Brazil; 3Federal University of State of Rio de Janeiro, Brazil; 4Federal University of Espirito Santo, Brazil; 5CPAD, UFRGS, Brazil; 6Brasilia University, Brazil

337 Application of the randomized response technique to the nationwide general population survey on drugs in the Republic of Georgia
I. Kirtadze1,2, D. Otiaashvili1, M. Tabataadze1,2, I. Vardanashvili2, L. Sturua3, T. Zabransky4, J. Anthony5. 1Addiction Research Centre, Alternative Georgia, Georgia; 2Ilia State University, Georgia; 3National Center of Disease Control and Public Health, Georgia; 4ResAd Institute, Czech Republic; 5Michigan State University, United States

338 Prevalence of addictive behaviors: Thai national mental health survey 2013
P. Kittirattanapaiboon, A. Tanaree, N. Tantirangsee, W. Chutha. Department of Mental Health, Ministry of Public Health, Thailand

339 Prevalence of heavy alcohol use among people receiving methadone after a switch to Methadose
J. Klimas1, M. Milloy2, E. Nosova3, E. Wood2, T. Kerr2, K. Hayashi2. 1University College Dublin, Ireland; 2University of British Columbia, Canada
340 Sex differences in alcohol-related problems among individuals living with HIV in Lagos, Nigeria
O.M. Koyejo1, R.A. Lawal1, W. Kliewer2, C.A. Gbiri3, D.S. Svikis2. 1Federal Neuropsychiatry Hospital, Nigeria; 2Department of Psychology, Virginia Commonwealth University, United States; 3Neurophysiotherapy Unit, Department of Physiotherapy, College of Medicine, University of Lagos, Nigeria

341 Gender roles in Mexico, what is changing and what is not: Implications for youth substance use prevention
S. Kulis1, F. Marsiglia1, S. Ayers1, B. Nuno-Gutierrez2, A. Gonzalvez1. 1Arizona State University, United States; 2Universidad de Guadalajara, Mexico

342 Geographical inequalities in drug abuse risk in Taiwan due to sociodemographic, degree of industrialization, and health status differences
Y-C. Lan1, P-C. Kuo2. 1Department of Health Risk Management, China Medical University, China; 2Department of Public Health, China Medical University, China

343 A comprehensive examination of the impacts of a potentially tamper-resistant oxycodone formulation in Australia
B. Larance1, A. Peacock1, R. Ali2, M. Farrell1, R. Bruno3, N. Lintzeris4, T. Dobbins1, L. Degenhardt1. 1National Drug and Alcohol Research Centre, The University of New South Wales, Australia; 2The University of Adelaide, Australia; 3Department of Psychology, University of Tasmania School of Medicine, Australia; 4Drug and Alcohol Services, South Eastern Sydney Local Health District, Australia

344 Double whammy: Adverse childhood events and pain reflect symptomology and quality of life in women in substance abuse treatment
M. Lawental1,2, C. Zlotnick2, D. Pud2. 1University of South Florida, United States; 2University of Haifa, Israel

345 Prevalence rates and associated factors of frequent micturition and HIV infection in ketamine users in Taipei
T. Szu-Hsien Lee1, D.S. Metzger2,3, C-C. Hung4, J-J. Lee1. 1Department of Health Promotion and Education, National Taiwan Normal University, Taiwan; 2University of Pennsylvania, United States; 3Treatment Research Institute, United States; 4Institute of Brain Science, National Yang Ming University, Taiwan

346 Opioid use disorders 1990–2015: Results on sex and age differences from the global burden of disease
J. Leung1,2,3, A. Ferrari1,2,3, F. Charlson1,2,3, H. Whiteford1,2,3, T. Vos3, L. Degenhardt4. 1The University of Queensland School of Public Health, Australia; 2Policy and Epidemiology Group, Queensland Centre for Mental Health Research, Australia; 3Institute for Health Metrics and Evaluation, University of Washington, United States; 4National Drug and Alcohol Research Centre, The University of New South Wales, Australia

347 HIV-1 and hepatitis C virus transmission bottleneck in Chinese people who inject drugs
F. Li1, Y. Feng1, L. Ma1, K.J. Bar2, D.S. Metzger, Y. Shao1. 1Chinese Center for Disease Control and Prevention, China; 2University of Pennsylvania, United States

348 The situational analysis of marijuana use in Thailand
S. Likhitsathian, M. Srisurapanont, W. Jiraporncharoen, C. Angkurawaranon, A. Aramrattana. Chiang Mai University, Thailand

349 Gambling in Iran
M. Mardaneh, M. Maarefvand, Z. Zamani, Z. Morshed. Substance Abuse and Dependence Research Center, University of Social Welfare and Rehabilitation Sciences, Iran
350 Co-occurring disorders: A challenge for community-based residential care facilities for substance use in Mexico
R. Marin-Navarrete¹, M.E. Medina-Mora¹, V. Horigian², I. Salloun², L. Villalobos-Gallegos¹. ¹National Institute of Psychiatry, Mexico; ²University of Miami Miller School of Medicine, United States

351 The impact of law enforcement on risk for injection drug use initiation assistance in North America
J. Melo¹, R. Garfein¹, K. Hayashi²,³ M-J. Milloy², K. Debeck², S. Sun¹, S. Jain¹, S. Strathdee¹, D. Werb¹. ¹University of California San Diego, United States; ²British Columbia Centre for Excellence in HIV/AIDS, Canada; ³St. Paul’s Hospital, Simon Fraser University, Canada

352 Risk perception and driving under the influence of marijuana: A study among Brazilian college students
J. Mendes¹,², O. Jacobina³, C. Passos¹. ¹National Secretariat on Drugs Policy, Brazil; ²Institute of Higher Education of Brasilia, Brazil; ³State Secretariat on Human Rights, Brazil; ⁴University of Brasilia, Brazil

353 Opium abuse and its relationship to depression among medical/surgical hospitalized patients
S. Momtazi¹, Y. Abolghasemi Fakhrí², S. Faghizadeh¹. ¹Zanjan University of Medical Sciences, Iran; ²Tabriz University of Medical Sciences, Iran

354 Hepatitis C virus infection and fibrosis of the liver in former injection drug users with alcohol use disorder
R. Muga¹, A. Sanvisens¹, F. Bolao², Y. Zuluaga¹, D. Fuster¹, I. Rivas³, J. Tor¹. ¹Internal Medicine Department, Hospital Universitari Germans Trias i Pujol, Universitat Autonoma de Barcelona, Spain; ²Hospital Universitari de Bellvitge, Spain; ³Centre Delta, Institute for Safe Medication Practices, Spain

355 Lifetime prevalence, correlates, and patterns of heroin use among youth in Ecuador
D. Ocana¹, W.L. Kliewer², E. Prom-Wormley³. ¹Humphrey Fellowship Program, Virginia Commonwealth University, United States; ²Department of Psychology, Virginia Commonwealth University, United States; ³Department of Family Medicine and Population Health, Virginia Commonwealth University, United States

356 Cannabis use disorders and associated factors among commercial drivers arrested for traffic offenses in Lagos
M. Ojo, A. Adegbohun, G. Morakinyo. Federal Neuropsychiatric Hospital Yaba, Nigeria

357 Psychological well-being and substance abuse among adolescents in a senior secondary school in Lagos, Nigeria
C. Okonkwo, A. Ajayi, J. Olusegun. Federal Neuropsychiatric Hospital Yaba, Nigeria

358 Emerging drugs of abuse: Current perspectives on substituted opiates, nicotine, cannabinoids, and cathinone among urban populations in Kenya
P. Okwarah¹,², R. Hakunju¹,³, R. Kahuthia⁴, J. Thungu⁵. ¹Movement Against Substance Abuse in Africa, Kenya; ²Jomo Kenyatta University of Agriculture and Technology, Kenya; ³National Authority for the Campaign Against Alcohol and Drug Abuse, Kenya; ⁴Kenyatta University, Kenya; ⁵Thogoto Teachers College, Kenya

359 Psychological factors and risk perception as predictors of tobacco smoking behavior among undergraduates of University of Calabar, Nigeria
U. Onukogu. Federal Neuropsychiatric Hospital Calabar, Cross River State, Nigeria
360 High rates of incarceration due to drug trafficking in the last decade in Brazil
F. Ornell1, J. Scherer1, K. Ligabue2, J. Narvaez1, C. Dalbosco1, R. Ornell1, R. Dotta3, L. Telles1, F. Pechansky2, L. von Diemen1, F. Kessler1,4. 1Center for Drug and Alcohol Research, Hospital de Clinicas de Porto Alegre, Federal University of Rio Grande do Sul (UFRGS), Brazil; 2Center for Drug and Alcohol Research, UFRGS, Brazil; 3Fundacao Escola Superior do Ministerio Publico, Brazil; 4Department of Psychiatry and Legal Medicine, UFRGS, Brazil

361 Exploring the new phenomena of homemade extraction and injection of ephedra plant product in Georgia
D. Otiashvili1,2, I. Kirtadze1, D. Bergen-Cico3. 1Addiction Research Centre, Alternative Georgia, Georgia; 2Georgian Institute of Public Affairs, Georgia; 3Department of Public Health, Syracuse University, United States

262 Causal pathways between impulsiveness, crack cocaine use consequences, and attention deficit hyperactivity disorder
M. Pachado1, A. Willhelm2, L.S.P. Guimaraes3, F. Pechansky1, F. Kessler4,5, R.M. Martins De Almeida2, 1Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul (UFRGS), Brazil; 2Department of Psychology, UFRGS, Brazil; 3Department of Epidemiology and Statistics, Hospital de Clinicas de Porto Alegre (HCPA), Brazil; 4Department of Psychiatry and Legal Medicine, UFRGS, Brazil; 5Center for Drug and Alcohol Research, HCPA, UFRGS, Brazil

363 Alcohol, substance use, and violence among secondary school students in Northeastern Thailand
S. Paileeklee1, S. Dithisawatwet2. 1Faculty of Medicine, Khon Kaen University, Thailand; 2The Office of Disease Prevention and Control, Region 8, Thailand

364 Predictors of risk of illicit drug use during pregnancy among women attending midwife obstetric units in the Cape Metropole, South Africa
P. Petersen Williams1,2, C. Mathews1,2, E. Jordan1,3, C. Parry1,4. 1South African Medical Research Council, South Africa; 2University of Cape Town, South Africa; 3University of the Western Cape, South Africa; 4Stellenbosch University, South Africa

365 Driving under the effect of marijuana: Cross-sectional study using the 2014 Chilean National Drugs Survey
E. Pizarro1, J. Marin1, N. Rodriguez1, C. Ibanez2. 1Research Department, National Service for Prevention and Rehabilitation of Drug and Alcohol Consumption, Chile; 2Department of Psychiatry and Mental Health, University of Chile, Chile

366 Characteristics of contemporary patients with heroin use disorder at the first treatment
I. Rivas1, A. Sanvisens2, E. Faure1, M. Rubio1, N. Espinach1, T. Munoz1, Y. Zuluaga2, D. Fuster2. 1Municipal Center for Substance Abuse Treatment (IMSP Centre Delta), Spain; 2Internal Medicine Department, Hospital Universitari Germans Trias i Pujol, Universitat Autonoma de Barcelona, Spain

367 The Great Lakes effect: Discovering hot spots for rates of diversion of prescription opioids within Ontario, Canada
T. Rosen1, Z. Margolin1, M-C. Lelait1, O. Dziadkowiec1, J. Green2, R. Dart2, S. Kurtz2. 1Rocky Mountain Poison and Drug Center, United States; 2Canadian Consumer Product and Pharmaceutical Safety, Inc., Ontario; 3Center for Applied Research on Substance Use and Health Disparities, Nova Southeastern University, United States
368 Effects of telomere length on depression in a crack cocaine addiction background
D.L. Rovaris¹, A. de Castro¹, B. Sanvicente-Vieira², C. Winkler¹, G. Xavier³, S.I.N. Belangero³, C. Bau¹, R. Grassi-Oliveira². ¹Department of Genetics, Universidade Federal do Rio Grande do Sul, Brazil; ²Pontifical Catholic University of Rio Grande do Sul, Brazil; ³Department of Morphology and Genetics, Universidade Federal de Sao Paulo, Brazil

369 Could tobacco be responsible for the apparent increased frequency of orofacial clefts in Bolivia?
I. Salvatierra. Arco Iris Hospital–La Paz, Bolivia; Hubert Humphrey Fellowship, Virginia Commonwealth University, United States

370 Early substance use and child sexual abuse: Risk factors for adolescent entry to the sex trade in the U.S.–Mexico Border region
A. Servin¹,², K. Brouwer³, G. Rangel⁴, J. Silverman². ¹University Xochicalco School of Medicine, Mexico; ²Division of Global Public Health, University of California San Diego, United States; ³Department of Family Medicine and Public Health, University of California San Diego, United States; ⁴United States–Mexico Border Health Commission, United States

371 Psychometric properties of the stigma scale among Pakistanis with substance use disorders
S. Shahzad¹,², N. Begum³, W. Kliwer². ¹University of Karachi, Pakistan; ²Virginia Commonwealth University, United States; ³Area Study Center for Europe, University of Karachi, Pakistan

372 Clinical characteristics of HPTN 074-screened people who inject drugs in Jakarta
H. Susami¹, I. Octavianto¹, Z. Djoerban¹, S. Djauzi¹, R. Sarasvita¹, D. Imran¹, W.C. Miller³, I. Hoffman³, S. Rose⁵, D.S. Metzger⁶. ¹HPTN 074 Indonesia Site–Cipto Mangunkusumo Hospital, Indonesia; ²Indonesia National Narcotics Board, Indonesia; ³HIV Prevention Trials Network, Ohio State University, United States; ⁴HIV Prevention Trials Network, University of North Carolina, United States; ⁵FHI 360, HIV Prevention Trials Network, United States; ⁶Treatment Research Institute, University of Pennsylvania, United States

373 Dual-diagnosis resource needs in Spain: A national survey of professionals
N. Szerman. Hospital Universitario Gregorio Maranon, Spain; Spanish Society Dual Pathology, Spain

374 Prevalence and correlates of misuse of benzodiazepines in Gjilan region, Kosovo
Z. Tahirı, M. Qazimi. Main Family Medicine Center, Kosovo

375 Substance use in Northern Thailand: Results from the 6th National Household Survey (2016)
K. Thaikla, A. Aramrattana, A. Nimmannit. Chiang Mai University, Thailand

376 Criminal involvement of crack cocaine users in the city of Rio de Janeiro and greater metropolitan area
L. Toledo¹, I. Cano², L. Bastos¹, N. Berton³, C. Coutinho¹, F.I. Bastos¹. ¹Oswaldo Cruz Foundation, Brazil; ²State University of Rio de Janeiro, Brazil; ³Brazilian National Cancer Institute, Brazil

377 Prevalence of tobacco use in Indonesia: A preliminary analysis of cultural and structural factors
N. Widyaningrum, J. Yu. University at Albany, State University of New York, United States
378 Drug situation in the countries of Central Asia: Outputs of the Central Asia Drug Action Programme

T. Zabransky1,2,3, V. Mravcik1,4, A. Talu5, E. Jasaitis6. 1ResAd Institute, Czech Republic; 2Palacky University, Czech Republic; 3Charles University in Prague, Czech Republic; 4National Monitoring Centre for Drugs and Addiction, Czech Republic; 5Department of Public Health, University of Tartu, Estonia; 6Drug Control Department Under the Government of the Republic of Lithuania, Réseau Européen d’Information sur les Drogues et les Toxicomanies (REITOX), National Focal Point, Lithuania

Prevention

400 Distribution risks involving psychological dependence among adults in primary health care systems in Kazakhstan

G. Altynbekova, G. Magauina, G. Sadvakasova. Republican Scientific and Practical Centre of Medical and Social Problems of Drug Abuse–Pavlodar, Kazakhstan

401 HIV/AIDS, hepatitis, and sexually transmitted infections prevention among Egyptian substance users

A. Bakhoum1,2, A. Stock3, E. El Kharrat1,4. 1Freedom Drugs and HIV Program, Egypt; 2National Hepatology and Tropical Medicine Research Institute, Egypt; 3University of East Anglia, Norwich Medical School, United Kingdom; 4World Federation of Therapeutic Communities, Egypt

402 Intervening with young substance-using women who have left school early: Results of a pilot study in Cape Town

T. Carney1,2, F. Browne3, B. Myers1,2, T. Kline3, W. Wechsberg3,4,5,6. 1South African Medical Research Council, South Africa; 2University of Cape Town, South Africa; 3Research Triangle Institute International, United States; 4The University of North Carolina, United States; 5North Carolina State University, United States; 6Duke University, United States

403 High prevalence of HIV in noninjecting drug users in Brazil


404 Assessment of a behavioral intervention for HIV-positive persons who inject drugs in Ukraine

T. Kiriazova. Ukrainian Institute on Public Health Policy, Ukraine

405 Typology of street substance users’ communities in Tehran

M. Maarefand, S. Shirazi, R. Peyravi, A. Farhoudian. Substance Abuse and Dependence Research Center, University of Social Welfare and Rehabilitation Sciences, Iran

406 High-risk behaviors among Iranian female drug users inspiring Health Belief Model

E. Merghati Khoei1, M. Jamshidimanesh2, F. Ilika2. 1Tehran University of Medical Sciences, Iranian National Center for Addiction Studies, Iran; 2Iran University of Medical Sciences, Iran

407 Predictors of HIV and hepatitis C virus seroconversion in people who inject drugs in Ukraine

A. Meteliuk1, A. Mazhnaya2, S. Filippovich1, A. Zelenev3, F.L. Altice4,5. 1Alliance for Public Health, Ukraine; 2Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health, United States; 3Center for Interdisciplinary Research on AIDS, Yale University, United States; 4AIDS Program, Section of Infectious Diseases, Yale University School of Medicine, United States; 5Division of Epidemiology of Microbial Diseases, Yale University School of Public Health, United States
408 HPTN074: Spatial accessibility to antiretroviral therapy care among people who inject drugs in Jakarta
M. Muslim1,2, H. Susami1,3, Z. Djoerban1,3, S. Djauzi1,3, R. Sarasvita1,3,4, D. Imran1, P. Richardson5, E. Piwowar-Manning5, W. Miller6, I. Hoffman7, S. Rose8, D. Metzger9,10.
1HPTN 074 Indonesia Site–Cipto Mangun Kusumo Hospital, Indonesia; 2Climate Change Research Center, Universitas Teknologi Sumbawa, Indonesia; 3Abhipraya Foundation, Indonesia; 4National Narcotics Board of Indonesia, Indonesia; 5Johns Hopkins University, United States; 6Ohio State University, United States; 7University of North Carolina, United States; 8FHI 360, HIV Prevention Trials Network, United States; 9University of Pennsylvania, United States; 10Treatments Research Institute, United States

409 HIV prevalence and linkage to care among trauma-exposed substance-using women in Cape Town, South Africa
B. Myers1, T. Carney1, F. Browne2, W. Wechsberg2. 1South African Medical Research Council, South Africa; 2Research Triangle Institute International, United States

410 Antiretroviral therapy is the most essential intervention among people who inject drugs (PWID) to achieve reduction in HIV transmission through PWID to others in Burma (Myanmar)
R. Myint. Myanmar Anti-Narcotics Association, Burma (Myanmar)

411 The effectiveness of Choice-F on women freshman college students in reducing substance use and other risk behaviors
V. Ryabukha. Prevention Center, “Choice,” Ukraine

412 Opportunities for and awareness of pre-exposure prophylaxis among HIV-infected Russian women and men
J. Tsui1,2, J. Wagman3, D. Cheng4, N. Gnatienko5, E. Blokhina6, L. Forman4, A. Bazzi4, D. Liozno6,7, J. Samet4,5. 1University of Washington, United States; 2Harborview Medical Center, United States; 3University of California San Diego, United States; 4Boston University, United States; 5Boston Medical Center, United States; 6First Pavlov State Medical University, Russia; 7Pasteur Research Institute of Epidemiology and Microbiology, Russia

413 Public injection and injection initiation assistance among people who inject drugs in two North American countries
D. Vashishtha1, M.L. Mittal1, R. Garfein1, K. Hayashi2, M-J. Milloy2, J. Cuevas-Mota1, S. Sun1, S. Jain1, S. Strathdee1, D. Werb1. 1University of California San Diego, United States; 2British Columbia Centre for Excellence in HIV/AIDS, Canada

414 Systematic review of interventions to reduce harm associated with substance use in women
N. Yousaf3, W.L. Kliewer2. 1Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States; 2Department of Psychology, Virginia Commonwealth University, United States

Treatment

500 Paradoxical drugs policy and practice: The evil to worsen the lives of the people who use drugs and their families in Nepal
S. Acharya1,2, S. Paudel2,3. 1Tribhuvan University, Nepal; 2National Association of People Living With HIV in Nepal, Nepal; 3University of Western Sydney, Australia
501 Pilot study on smokable cocaine users receiving treatment in Argentina, Brazil, Chile, Paraguay, and Uruguay
G. Ahumada1, F. Cumsille2, M. Hynes2, A.C. Camarotti3,4, L. De Oliveira Pinto5, N. Del Valle6, M. Oliva7, H. Suarez8. 1Red Latinoamericana de Investigadores en Drogas, Argentina; 2The Inter-American Observatory on Drugs, Inter-American Drug Abuse Control Commission, Organization of American States, United States; 3Secretariat of Programming for the Prevention of Drug Addiction and Fight Against Drug Trafficking, Argentina; 4Instituto Gino Germani, Universidad de Buenos Aires, Argentina; 5Secretary of Health of the State of Bahia, Brazil; 6National Secretariat for Drug Policy (SENAD), Paraguay; 7SENAD, Chile; 8Junta Nacional de Drogas, Uruguay

502 Marijuana and amphetamine use among patients on methadone treatment in Malaysia
N. Ali1, S. Aziz2, S. Nordin3, N. Che Mi2, N. Abdullah4, M. Mahmud5, V. Paranthaman6, M. Mazlan7. 1Masjid Tanah Health Clinic, Melaka, Malaysia; 2Kuala Lumpur Hospital, Malaysia; 3Batu 9 Health Clinic, Malaysia; 4Tengku Ampuan Rahimah Hospital, Malaysia; 5Selangor Buluh Health Clinic, Malaysia; 6Jelapang Health Clinic, Malaysia; 7Muar Substance Abuse Research Centre, Malaysia

503 Depenalizing drug use: A pilot project to move arrested people who use drugs from police detention to treatment in Besut, Terengganu, Malaysia
M.F. Basir1, G.D. Selventhiranathan2, A. Khan2, B. Vicknasingam1. 1Centre for Drug Research, Universiti Sains Malaysia, Malaysia; 2Performance, Management and Delivery Unit, Prime Minister’s Department, Malaysia

504 United Nations Office on Drugs and Crime, World Health Organization multisite study on community management of opioid overdose including naloxone
A. Busse1, G. Gerra1, V. Poznyak2, R. McDonald3, N. Clark2, E. Saenz1, W. Kashino1, G. Aiello1, J. Strang3. 1United Nations Office on Drugs and Crime, Austria; 2World Health Organization, Switzerland; 3King’s College London, United Kingdom

505 Diversion of patients attending emergency departments in Northern Ireland
A. Campbell, S. Millen. Drug and Alcohol Research Network, Queens University Belfast, Ireland

506 More severe executive abnormalities in crack versus snorted cocaine-dependent patients: A neuropsychological study
P. Cunha1, H. Oliveira Jr.1, P. Goncalves1, M. Ometto1, B. Santos2, A. Malbergier1, R. Amaral1, S. Nicastri1, A. Guerra De Andrade1. 1Institute of Psychiatry, University of São Paulo Medical School, Brazil; 2University of São Paulo School of Nursing, Brazil

507 Results from 10 years of a smoking cessation program in Florianopolis, Brazil
R. de Cerqueira Campos1, F. De Conto1, M. Pereira1, P. Alexander2. 1City Health Department of Florianopolis–Santa Catarina, Brazil; 2Health Administration, College of Business, Florida Atlantic University, United States

508 Do males and females present similar needs and problems for drug abuse treatment? Comparative study between Brazil and the United States
F. De Conto1,2, R. de Cerqueira Campos1, S. Kelpin3, D. Svikis3. 1City Health Department of Florianopolis–Santa Catarina, Brazil; 2Federal University of Santa Catarina, Brazil; 3Virginia Commonwealth University, United States

509 Providing PAWSitive support to methadone clients: A case study
C. Dell1,2, D. Chalmers3. 1University of Saskatchewan, Canada; 2Canadian Centre on Substance Abuse, Canada; 3University of Regina, Canada
510 Cost of an integrated treatment program for opiate addiction and HIV in Ho Chi Minh City, Vietnam
C. Denis1,2, J. Becher1, T. Doan3, H. Tran3, L. Nguyen3, T. Nguyen3,4, L. Huang3, V. Trias3, M. Auriacombe2, A. Voisin5, G. Raguin3, S. Hoai6, G. Le Truong6, J-P. Daulouede3,5, C. O’Brien1, D.S. Metzger7. 1University of Pennsylvania Perelman School of Medicine, United States; 2CNRS USR 3413 SANPSY, University of Bordeaux, France; 3Expertise France, France; 4Ho Chi Minh City University of Medicine and Pharmacy, Vietnam; 5Bizia Addiction Clinic, France; 6Ho Chi Minh City Provincial AIDS Committee, Vietnam; 7Treatment Research Institute, University of Pennsylvania, United States

511 Correlates of retention in opioid agonist treatment of opioid dependence in Ukraine
K. Dumchev1, S. Dvoriak1, O. Chernova1, O. Morozova2, F. Altice3. 1Ukrainian Institute on Public Health Policy, Ukraine; 2Yale University School of Public Health, United States; 3AIDS Program, Section of Infectious Diseases, Yale University School of Medicine, United States

512 Brief behavioral educational interventions to promote methadone expansion within prisons in Ukraine
S. Dvoriak1,2, M. Polonsky3, F. Altice3. 1Ukrainian Institute on Public Health Policy, Ukraine; 2Academy of Labour, Social Relations and Tourism, Department of Social Work, Ukraine; 3Yale University School of Medicine, United States

513 Challenges in detoxification of addicted traumatized patients in Nigeria
E. Ehikhamenor1,2, P. Aliu2,3. 1University of Benin, Nigeria; 2Save Accident Victims Association of Nigeria, Nigeria; 3National Open University, Nigeria

514 Transcranial direct current stimulation modulates connectivity between dorsolateral prefrontal cortex and insula during drug cue exposure in methamphetamine users
H. Ekhtiari1,2, M. Ebrahimpoor3, A. Shahbabaie1, M.A. Oghabian3. 1Translational Neuroscience Program, Institute for Cognitive Science Studies, Iran; 2Iranian National Center for Addiction Studies, Iran; 3Neuroimaging and Analysis Group, Tehran University of Medical Sciences, Iran

515 Association between depressive symptoms and smoking in individuals receiving behavioral activation
A. Gonzalez-Roz, S. Weidberg, V. Martinez-Loredo, A. Grande-Gosende, R. Secades-Villa. University of Oviedo, Spain

516 Vulnerability and protective factors among female crack users who abandoned and concluded treatment
T. Guimaraes1,2, S. Halpern1, C. Dalbosco1, L. Rosa2,3, F. Pechansky1, Joana Narvaez1. 1Center for Drug and Alcohol Research, Hospital de Clinicas de Porto Alegre, Federal University of Rio Grande do Sul, Brazil; 2Federal University of Piaui, Brazil; 3Regional Center of Reference About Drugs of Juiz de Fora, Brazil

517 Atypical versus typical antipsychotics for the treatment of addiction: A systematic review and meta-analytic study
S.C. Hanu. Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States; Mental Health Authority, Ghana
518 *A mixed-methods evaluation of HIV risk among opioid-dependent women in Ukraine*
E. Hoff, R. Marcus, F. Altice, J. Meyer. 1Yale University School of Medicine, United States; 2AIDS Program, Section of Infectious Diseases, Yale University School of Medicine, United States; 3Department of Epidemiology of Microbial Diseases, Yale University School of Public Health, United States; 4University of Malaya-Kuala Lumpur, Malaysia

519 *Opioid craving and HIV care cascade outcomes*
B. Idrisov, K. Lunze, D. Cheng, E. Blokhina, N. Gnatienko, E. Quinn, C. Bridden, A. Walley, K.J. Bryant, D. Liozno, E. Krupitsky, J. Samet. 1Boston Medical Center, United States; 2Bashkir State Medical University, Russia; 3First Pavlov State Medical University, Russia; 4Uganda Russia Boston Alcohol Network for Alcohol Research Collaboration on HIV/AIDS, United States; 5Boston University, United States; 6Boston Public Health Commission, United States; 7National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, United States; 8 Pasteur Research Institute of Epidemiology and Microbiology, Russia; 9Department of Infectious Diseases and Epidemiology, First St. Petersburg Pavlov State Medical University, Russia; 10St. Petersburg Bekhterev Research Psychoneurological Institute, Russia; 11Laboratory of Clinical Pharmacology of Addictions, First St. Petersburg Pavlov State Medical University, Russia

520 *Design of a multicenter randomized double-blind controlled trial of buprenorphine/naloxone versus placebo for treatment of opioid dependence in China*
H. Jiang, J. Li, L. Sheng, Y. Li, W. Ling, M. Zhao, W. Hao. 1Shanghai Jiao Tong University School of Medicine, Shanghai Mental Health Center, China; 2West Hospital of Sichuan University, China; 3Capita Medical University, Beijing An Ding Hospital, China; 4Wuhan Mental Health Center, China; 5Department of Psychiatry, Integrated Substance Abuse Program, University of California Los Angeles, United States; 6Mental Health Institute & Faculty of Psychiatry, Central South University, China

521 *Guidelines for establishing an effective and cost-effective alcohol and drug abuse treatment program in Kenya*
J.M. Kenga, M.N. Khaemba, F. Kamau. 1Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States; 2Kenya Correctional Services, Kenya; 3Drug Board–Nairobi County, Kenya

522 *Naltrexone implant, compared to oral naltrexone, improves HIV treatment outcomes of opiate-addicted patients*
E. Krupitsky, E. Zvartau, G. Woody, E. Blokhina, R. Gross. 1St. Petersburg Bekhterev Research Psychoneurological Institute, Russia; 2First Pavlov State Medical University, Russia; 3University of Pennsylvania, United States

523 *Salivary cortisol levels in Brazilian crack cocaine users and early inpatient discharge*

524 *Ayahuasca as treatment for addictions*
R. Lopez. Universidad Mayor de San Andres, Bolivia
525 Concurrent drug use during opioid agonist treatment among people who inject drugs in Ukraine
I. Makarenko1,2, A. Mazhnaya1, R. Marcus2, S. Filippovich1, S. Dvoriak3, F. Altice2,4.
1Alliance for Public Health, Ukraine; 2AIDS Program, Section of Infectious Diseases, Yale University School of Medicine, United States; 3Ukrainian Institute on Public Health Policy, Ukraine; 4Department of Epidemiology of Microbial Diseases, Yale University School of Public Health, United States

526 Substance use in children in Afghanistan: Gender differences at treatment entry and in response to treatment
A.S. Momand1,2, H. Jones3,4, E. Mattfeld5, B. Morales6, K. O’Grady7. 1United Nations Office on Drugs and Crime (UNODC), Afghanistan; 2Hubert H. Humphrey Fellowship Program, Virginia Commonwealth University, United States; 3Horizons Program, Department of Obstetrics and Gynecology, University of North Carolina at Chapel Hill, United States; 4Department of Psychiatry, Johns Hopkins University, United States; 5UNODC, Austria; 6Bureau of International Narcotics and Law Enforcement Affairs, U.S. Department of State, United States; 7Department of Psychology, University of Maryland, College Park, United States

527 Providing methadone treatment in primary care reduces stigma among patients and providers in Ukraine
O. Morozova1, S. Dvoriak2, I. Pykalo2, F. Altice3. 1Yale University School of Public Health, United States; 2Ukrainian Institute on Public Health Policy, Ukraine; 3AIDS Program, Section of Infectious Diseases, Yale University School of Medicine, United States

528 Domestic violence and gender differences related to legal problems among crack users
J. Narvaez, V. Roglio, L. Dutra, F. Pechansky, F. Kessler. Center for Drug and Alcohol Research, Hospital de Clinicas de Porto Alegre, Federal University of Rio Grande do Sul, Brazil

529 Prevalence of substance use and challenges in accessing treatment among the transgender community in Pakistan
F. Naveed, K. Mushtaq. Drug Free Pakistan Foundation, Pakistan

530 Change over 12 months of an integrated treatment program for opiate addiction and HIV in Ho Chi Minh City, Vietnam: Highlighting the role of counseling
T. Nguyen1, C. Denis2,3, A. Voisin4, T. Doan5, H. Tran5, L. Nguyen5, V. Trias5, L. Huang5, M. Auriaçombe3, G. Raguin5, S. Hoa2, G. Le Truong6, J-P. Daulouede4,5, C. O’Brien2, D.S. Metzger2,7. 1Ho Chi Minh City University of Medicine and Pharmacy, Vietnam; 2University of Pennsylvania Perelman School of Medicine, United States; 3CNRS USR 3413 SANPSY, University of Bordeaux, France; 4Bizia Addiction Clinic, France; 5Expertise France, France; 6Ho Chi Minh City Provincial AIDS Committee, Vietnam; 7Treatment Research Institute, United States

531 Initial establishment of pilot drug treatment courts in Vietnam
D. Nguyen1, H. Vu2. 1National Committee for AIDS, Drugs, Prostitution Prevention and Control, Vietnam; 2Substance Abuse and Mental Health Services Administration, Vietnam
532 Longitudinal study of pharmaceutical opioid dependence in Australia: Patterns and correlates of substance use over 24 months
S. Nielsen¹,², S. Cooper¹, B. Larance¹, R. Bruno¹,³, B. Murnion⁴, N. Lintzeris²,⁴, S. Ling⁵, C. Sadler⁵, A. Dunlop⁵, M. Hardy⁶, P. Claire¹, J. Houseman⁶, N. Phung⁷, A. Brown⁵, P. Haber⁴, L. Degenhardt¹. ¹National Drug and Alcohol Research Centre, The University of New South Wales, Australia; ²Drug and Alcohol Services, South Eastern Sydney Local Health District, Australia; ³Department of Psychology, University of Tasmania School of Medicine, Australia; ⁴University of Sydney, Australia; ⁵Drug and Alcohol Services, Hunter New England Local Health District, Australia; ⁶Northern Sydney Local Health District, Australia; ⁷Drug Health, Western Sydney Local Health District, Australia

533 Contingency management for abstinence versus contingency management for shaping cessation among treatment-seeking Smokers
C. Lopez Nunez¹,², R. Secades-Villa², S. Weidberg², A. Gonzalez De La Roz². ¹Private Technical University of Loja, Ecuador; ²University of Oviedo, Spain

534 Influence of family support toward antiretroviral therapy adherence among HIV-infected people who inject drugs
I. Octavianto¹,², A. Fahrudin³,⁴, H. Susami¹,⁵, R. Sarasvita¹,⁵, D.S. Metzger⁶,⁷. ¹HPTN 074 Indonesia Site–Cipto Mangunkusumo Hospital, Indonesia; ²Karisma Foundation, Indonesia; ³Universitas Muhammadiyah Jakarta, Indonesia; ⁴Asiana Foundation, Indonesia; ⁵Abhipraya Foundation, Indonesia; ⁶University of Pennsylvania, United States; ⁷Treatment Research Institute, United States

535 Marijuana disorder among outpatients receiving treatment in Uruguay: Examining consequences in cannabis policy changes
A. Pascale¹,², C. Bares³, M. Valdez¹, C. Herrera¹, A. Usher¹, O. Binagi¹, C. Lopez¹, C. Mediza¹, L. Oliver¹. ¹Grupo de Cavia Outpatient Clinic, Uruguay; ²Red Latinoamericana de Investigadores en Drogas, Uruguay; ³University of Michigan, United States

536 Key challenges of an opioid substitution treatment program in Ukraine
T. Prokhorova, O. Burgay. ICF “Alliance for Public Health,” Ukraine

537 Patients’ attitudes toward opioid agonist therapy in primary health care settings in Ukraine
I. Pykal¹, O. Morozova², S. Dvoriak¹. ¹Ukrainian Institute on Public Health Policy, Ukraine; ²Yale University, United States

538 Cognitive rehabilitation for individuals with opioid use disorder: A randomized controlled trial
T. Rezapour¹,², H. Ekhtiari¹,², J. Hatami¹,³, A. Farhoudian⁴, R. Daneshmand⁴, M. Sofuoglu⁵,⁶, A. Noroozi²,⁷, A. Samiei⁸. ¹Translational Neuroscience Program, Institute for Cognitive Science Studies, Iran; ²Neurocognitive Laboratory, Iranian National Center for Addiction Studies, Iran; ³Department of Psychology, Faculty of Psychology and Education, University of Tehran, Iran; ⁴Substance Abuse and Dependence Research Center, University of Social Welfare and Rehabilitation Sciences, Iran; ⁵Department of Psychiatry, Yale University School of Medicine, United States; ⁶VA Connecticut Healthcare System, United States; ⁷Iranian Institute for Reduction of High-Risk Behaviors, Tehran University of Medical Sciences, Iran; ⁸School of Medicine, Arak University of Medical Sciences, Iran

539 Evaluation of two screening devices for cocaine detection in oral fluid
J. Scherer¹, T. Fiorentin², T. Sousa¹, R. Limberger², F. Pechansky¹. ¹Center for Drug and Alcohol Research, Hospital de Clinicas de Porto Alegre, Federal University of Rio Grande do Sul, Brazil; ²Faculdade de Farmacia, Universidade Federal do Rio Grande do Sul, Brazil
540 Effects of khat (Catha edulis) on electrophysiologic properties of the heart and lung function indices
Y. Sewiye. Department of Physiology, Jimma University, Ethiopia

541 Feasibility, acceptability, and efficacy of a cognitive behavioral therapy for methamphetamine use disorders in South Africa
K. Sorsdahl1, D.J. Stein1, S. Pasche2, Y. Jacobs3, R. Kader1, S. Richter4, B. Myers3, J. Grant5. 1University of Cape Town, South Africa; 2Stellenbosch University, South Africa; 3South African Medical Research Council, South Africa; 4Professional Data Analysts, Inc., United States; 5University of Chicago, United States

542 The efficacy of computerized interventions to reduce cannabis use: A systematic review and meta-analysis
J. Tirado Munoz1, A. Olmos2, M. Farre Albadalejo3,4, M. Torrens Melich4,5. 1Addiction Research Group, Institut Hospital del Mar d’Investigacions Mediques (IMIM), Spain; 2Universitat Pompeu Fabra-Universitat Autonoma de Barcelona, Spain; 3Clinical Pharmacology Department, Hospital Universitari Germans Trias i Pujol-IGTP, Spain; 4Universitat Autonoma de Barcelona, Spain; 5Institut de Neuropsiquiatria i Addiccions, Hospital del Mar, Barcelona and IMIM, Spain

543 HIV infection in a methadone maintenance treatment program: Impact on retention
M. Torrens1,2, F. Fonseca1,2, C. Castillo1, G. Vallecillo1, C. Tamarit1, A. Roquer3, M. Farre2,4. 1Institut de Neuropsiquiatria i Addiccions, Hospital el Mar and Institut Hospital del Mar d’Investigacions Mediques, Spain; 2Universitat Autonoma de Barcelona, Spain; 3Institut de Neuropsiquiatria i Addiccions–Parc de Salut Mar, Spain; 4Hospital Universitari Germans Trias i Pujol-IGTP, Spain

544 Quality of life after treatment in a private residential addiction treatment center
T. Tsarouk, G. Thompson. Sunshine Coast Health Centre, Canada

545 Drug rehabilitation model of amphetamine-type stimulants users
D. Utami1,2, R. Sarasvita1,3. 1Indonesia National Narcotics Board, Indonesia; 2Abhipraya Foundation, Indonesia; 3HPTN 074 Indonesia Site–Cipto Mangunkusumo Hospital, Indonesia

546 The effect of agomelatine treatment on depression and methamphetamine withdrawal in methamphetamine-dependent patients with comorbid heroin dependence in a methadone maintenance treatment program: A randomized controlled trial
S. Wahab1, N. Ali2, H. Mohd Yusof3, N.A. Muhamad4, M. Mazlan5. 1Universiti Kebangsaan Malaysia Medical Centre, Malaysia; 2Masjid Tanah Health Clinic, Melaka, Malaysia; 3Permai Hospital Johor Bharu, Malaysia; 4Ministry of Health, Malaysia; 5Muar Substance Abuse Center, Malaysia

547 Effects of smoking abstinence on delay discounting in smokers with depression
S. Weidberg1,2, A. Gonzalez-Roz1, A. Garcia-Perez1, I. Pericot-Valverde3, R. Secades-Villa1. 1University of Oviedo, Spain; 2International University of la Rioja, Spain; 3University of Vermont, United States

548 Efficacy of prefrontal theta-burst stimulation in methamphetamine addiction: A randomized sham-controlled study
M. Zhao. Shanghai Jiao Tong University School of Medicine, Shanghai Mental Health Center, China
Monday, June 19, 2017

Workshop V
Westmount
7:00 - 9:00 PM

NAVIGATING KEY STAGES OF A CAREER IN ADDICTION SCIENCE

Chairs: Denise Vidot and Qiana Brown

Navigating the pre-doctoral stage: Achieving the impossible!
Q. Brown, Columbia University Mailman School of Public Health, Newark, NJ

Navigating the post doctoral stage: I made it! Now what?
T. Franklin, University of Pennsylvania, Philadelphia, PA

Navigating the early career stage: How do I obtain NIH funding?
C. Bares, University of Michigan, Ann Arbor, MI

Workshop VI
Outremont
7:00 - 9:00 PM

DEVELOPMENT OF ADAPTIVE TREATMENT STRATEGIES IN THE MANAGEMENT OF DRUG DEPENDENCE: LESSONS LEARNED FROM CLINICAL TRIALS CURRENTLY IN THE FIELD

Chairs: Joy Schmitz and Charles Green

Rationale and design of a SMART for facilitating treatment entry and family planning in substance-using NICU mothers
A. Stotts, University of Texas Medical School at Houston, Houston, TX

Rationale and design of a SMART for adolescent marijuana use
C. Stanger, Dartmouth College, Hanover, NH

Rationale and design of a SMART for cocaine cessation and relapse prevention
J. Schmitz, University of Texas Health Science Center, Houston, TX

Rational and design of a SMART for smoking cessation
C. Green, University of Texas Health Science Center, McGovern Medical School, Houston, TX

Discussant:
I. Nahum-Shani, University of Michigan, Ann Arbor, MI
Workshop VII

PRESCRIPTION MONITORING PROGRAMS – ISSUES AND IMPACT

Chairs: Suzanne Nielsen and Beth Sproule

National implementation of prescription monitoring programs in Australia
S. Nielsen, University of South Wales, Sydney, Australia

Using Florida’s prescription drug monitoring program to monitor pharacoeidemiologic outcomes before and after the US Centers for Disease Control and Prevention Opioid Prescribing Guidelines
C. Delcher, University of Florida, Gainesville, FL

Evaluation of the effectiveness of prescription monitoring programs
B. Sproule, Centre for Addiction and Mental Health, Toronto, ON, Canada

DISCUSSANT: Interventions in prescription opioid abuse – Do (or can) prescription monitoring programs make a difference?
R. Dart, Rocky Mountain Poison and Drug Center, Denver, CO

Workshop VIII

23ND ANNUAL CONTINGENCY MANAGEMENT WORKING GROUP

Chairs: Diann Gaalema and August Holtyn
Tuesday, June 20, 2017

Poster Session II
(Breakfast) Fontaine
8:00 - 10:00 AM

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

Set up time begins Monday, 1:00 PM
Must be removed by Tuesday, 12:00 noon

POLYDRUG

1 Medical marijuana laws and youth alcohol and marijuana use in 45 states
Julie Johnson¹, Renee Johnson², Sion Harris³, Ann-Marie Matteucci⁴, Dominic Hodgkin¹, Abena Jones², ¹Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, ³Harvard Medical School, Boston, MA, ⁴Brandeis University, Heller School for Social Policy and Management, Waltham, MA

2 Marijuana use and cigar use initiation: Prospective studies of adolescents
Grace Kong¹, Jessica Barrington-Trimis², Margaret Mayer¹, Adam Leventhal², Rob McConnell³, Suchitra Krishnan-Sarin¹, ¹Yale School of Medicine, New Haven, CT, ²University of Southern California, Los Angeles, CA

3 Prevalence of stimulant and opioid use among medical cannabis, non-medical cannabis, and non-cannabis using homeless and unstably housed women
Meredith Meacham¹, Danielle Ramo¹, Alex Kral², Elise Riley¹, ¹UCSF, San Francisco, CA, ²RTI International, Research Triangle Park, NC

4 Subjective effects of smoking among opioid-maintained individuals: Results from a pilot study examining reduced nicotine content cigarettes
Stacey Sigmon¹, Joanna Streck², Sarah Heil¹, Maxine Stitzer³, Jennifer Tidey⁴, Diann Gaalema⁵, Stephen Higgins¹, ¹University of Vermont, Burlington, VT, ²Vermont Center on Behavior and Health, Burlington, VT, ³Johns Hopkins Bayview Medical Center, Baltimore, MD, ⁴Brown University School of Medicine, Providence, RI, ⁵University of Vermont UHC Campus, Burlington, VT

5 The association between parental history and delay discounting among individuals in recovery from addiction
Liqa Athamneh¹, Jeffrey Stein¹, Amanda Quisenberry², Derek Pope¹, Patsy Marshall¹, ¹Virginia Tech Carilion Research Institute, Roanoke, VA, ²Ohio State University, Columbus, OH

6 Substance-using mothers experiencing suicidal thoughts: Impact of parenting behaviors on child behavior problems
Brittany Brakenhoff¹, Natasha Slesnick¹, Quiong Wu¹, ¹Ohio State University, Columbus, OH
7 Substance use escalation into early adulthood among the children in the MTA
Andrea Howard1, Brooke Molina2, John Mitchell1, Traci Kennedy2, Annamarie Stehli1, James Swanson1, Carleton University, Department of Psychology, Ottawa, ON, Canada, 2University of Pittsburgh, Pittsburgh, PA, 3Duke University School of Medicine, Durham, NC, 4University of California Irvine, Irvine, CA

8 Profiles of adverse childhood experiences and young adults’ substance use
Sunny Shin1, Shelby McDonald1, Michael Massey1, Virginia Commonwealth University, Richmond, VA

9 Effects of trauma type on substance use in reserve soldiers and spouses
Bonnie Vest1, Rachel Hoopsick1, D. Lynn Homish1, Rachel Daws1, Gregory Homish1, State University of New York at Buffalo, Buffalo, NY

10 Associations between employment and addiction type and severity
Camille Cibiel-Heintz1, Fuschia Serre1, Melina Fatseas2, Marc Auriacombe1, Université de Bordeaux, Bordeaux, France, 2Centre Hospitalier Charles Perrens, Bordeaux, France

11 Interoceptive awareness, emotion regulation and relapse among women in SUD treatment
Cynthia Price1, Sheila Crowell2, Megan Puzia2, Chieh Cheng1, Elaine Thompson1, 1University of Washington, Seattle, WA, 2University of Utah, Salt Lake City, UT

12 Life in recovery from addiction in Canada: A focus on barriers, relapse, and stigma
Robyn McQuaid1, Aqsa Malik2, Amy Porath1, Canadian Centre on Substance Abuse, Ottawa, ON, Canada, 2Canadian Centre on Substance Abuse, Ottawa, ON

13 The burden of disease attributable to alcohol and illicit drug use: Findings from the Global Burden of Disease Study 2015
Louisa Degenhardt1, Janni Leung2, Alize Ferrari3, Fiona Charlson3, Holly Erskine4, Damian Santomauro4, Whiteford Harvey3, Theo Vos5, 1National Drug and Alcohol Research Centre, Sydney, Australia, Australia, 2Queensland Centre for Mental Health Research, Archerfield, Queensland, Australia, 3Queensland Centre for Mental Health Research, Archerfield, Queensland, 4University of Queensland, Brisbane, Australia, 5University of Washington, Institute for Health Metrics and Evaluation, Seattle, WA

14 A randomized controlled analog trial for alcohol and tobacco smoking co-addiction using contingency management
Michael Orr1, Crystal Smith2, Samantha Martin3, Myles Finlay1, Olivia Brooks2, Oladunni Oluwoye2, Emily Leickly2, Michael McDonell2, Matt Layton2, John Roll1, Sterling McPherson3, Washington State University College of Nursing, Spokane, WA, 2Washington State University, Program of Excellence in Addictions Research, Spokane, WA, 3Washington State University, College of Medicine, Spokane, WA

15 Overcoming barriers to adopting and implementing medication-assisted addiction treatment: The medication research partnership
Croff Raina1, Kim Hoffman1, Kelly Alanis-Hirsch2, James Ford,II3, Dennis McCarty1, Laura Schmidt1, Oregon Health and Science University, Hillsboro, OR, 2Services Effectiveness Research Program, Durham, NC, 3University of Wisconsin-Madison, Madison, WI, 4UCSF, San Francisco, CA
16 Feasibility of an ED-based multi-session remote therapy intervention for drug use and violence
Patrick Carter¹, Jessica Roche¹, Maureen Walton², Rebecca Cunningham¹, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan-Addiction Research Center, Ann Arbor, MI

17 Baseline attitudes toward addressing patient drug use: Differences across health professional training programs
Aaron Johnson³, Yunmi Chung³, ¹Augusta University, Augusta, GA

18 Training the future of health and social care providers: Outcomes from screening, brief intervention, and referral to treatment for substance use trainings
Emily Sargent¹, Tess Kilwein¹, Joseph Miller¹, ¹University of North Dakota, Grand Forks, ND, ²University of Wyoming, Laramie, WY

19 Private health plans’ role in delivery and payment reform to support integrated care
Constance Horgan¹, Sharon Reif¹, Maureen Stewart², Deborah Garnick², Amity Quinn³, Timothy Creedon², Brooke Evans², ¹Brandeis University, Heller School for Social Policy and Management, Waltham, MA, ²Brandeis University, Waltham, MA

20 A qualitative study of barriers and facilitators affecting implementation of electronic health record-integrated screening for substance use in primary care
Jennifer McNeely¹, Pritika Kumar¹, Traci Rieckmann², Erica Sedlander¹, Sarah Farkas¹, Joseph Kanny³, Aida Vega³, Eva Waite¹, Lauren Pecoraro³, Richard Rosenthal¹, Dennis McCarty², John Rotrosen¹, ¹New York University School of Medicine, New York, NY, ²Oregon Health and Science University, Hillsboro, OR, ³Icahn School of Medicine at Mount Sinai, New York, NY

21 Elevated risk of leaving hospital against medical advice for substance users admitted to a Canadian hospital
Alexander Caudarella¹, Tim Guimond², Wiplove Lamba², Mary Yang², ¹University of Toronto, Toronto, ON, Canada, ²University of Toronto, Toronto, ON

22 Substance misuse screening in primary care: TAPS Tool vs. ASSIST
Robert Schwartz¹, Jennifer McNeely², Li-Tzy Wu³, Gaurav Sharma⁴, Aimee Wahle⁴, Carol Cushing⁵, courtney Nordeck¹, Anjalee Sharma¹, Kevin O’Grady⁵, Jan Gryczynski¹, Shannon Mitchell¹, Robert Ali⁷, John Marsden⁸, Geetha Subramaniam⁵, ¹Friends Research Institute, Baltimore, MD, ²New York University School of Medicine, New York, NY, ³Duke University School of Medicine, Durham, NC, ⁴The Emmes Corporation, Rockville, MD, ⁵NIDA, Bethesda, MD, ⁶University of Maryland-Psychology, College Park, MD, ⁷WHO Collaborating Centre for the Treatment of Drug and Alcohol Problems, Adelaide, South Australia, Australia, ⁸National Addiction Centre, Institute of Psychiatry, London, UK, United Kingdom

23 Satisfaction, alliance and intervention experience: Comparing provider- vs. computer-delivered brief, motivational interventions for substance use among childbearing-aged women
Amy Loree¹, Kimberly Yonkers², Steven Ondersma³, Kathryn Gilstad-Hayden², Steve Martino⁵, ¹VA Connecticut/Yale University School of Medicine, New Haven, CT, ²Yale University-Psychiatry, New Haven, CT, ³Wayne State University-Psychiatry and Behavioral Neurosciences, Detroit, MI
OPIOIDS II

24 An assessment of prevalence of substance abuse and associated factors among the medical and dental students in Chennai City, India
D. Francis, The Tamil Nadu Dr. M.G.R. Medical University, Chennai, India

25 Estimating heroin incidence in males and females using a back-calculation approach: Potential biases and re-calibration approaches
Hsueh-Han Yeh¹, Samantha J. Bauer¹, Qing Lu², James Anthony¹, ¹Michigan State University, Lansing, MI, ²Michigan State University, Department of Epidemiology and Biostatistics/College of Human Medicine, East Lansing, MI

26 Wet behind the ears? A Bayesian approach to estimating heroin incidence age by age
Samantha J. Bauer¹, Chris Thompson¹, Olga Vselvolozhskaya², James Anthony¹, ¹Michigan State University, Lansing, MI, ²College of Public Health, Lexington, KY

Provider characteristics and opioid prescribing among primary care physicians treating Medicare patients in the US
Lewei (Allison) Lin¹, Amy Bohnert¹, Paul Christine¹, Donovan Maust¹, ¹University of Michigan, Ann Arbor, MI

28 Assessing the risk of opioid abuse among individuals with high emergency department utilization
Henry Young¹, Mirsada Serdarevic¹, Hannah Crooke¹, Joseph Tyndall¹, Linda Cottler¹, ¹University of Florida, Gainesville, FL

29 Gun-carrying and suicidal behavior among substance-using women
Krishna Vaddiparti¹, Linda Cottler¹, ¹University of Florida, Gainesville, FL

30 Survey of treatment preferences for opioid use disorder
Ravi Nahata¹, Michael Mancino², Jeff Thostenson², Alison Oliveto², ¹Central VA Healthcare System, North Central, VA, ²University of Arkansas for Medical Sciences, Little Rock, AR

31 Prescription and over-the-counter opioids: A three country comparative analysis of pharmacists’ perspectives on codeine use and misuse
Tara Carney¹, John Wells², Charles Parry³, Padraig McGuinness⁴, Richard Harris⁵, Marie Claire van Hout², ¹South African Medical Research Council, Tygerberg, South Africa, South Africa, ²Waterford Institute of Technology, Waterford, Ireland, ³South African Medical Research Council, Tygerberg, South Africa, ⁴CARA Pharmacy, Dublin, Ireland, ⁵Weldricks Pharmacy, UK

32 The global burden of opioid use disorders 1990-2015: Results on sex and age differences from the Global Burden of Disease Study 2015
Janni Leung¹, Alize Ferrari¹, Fiona Charlson², Whiteford Harvey², Theo Vos³, Louisa Degenhardt⁴, ¹Queensland Centre for Mental Health Research, Archerfield, Queensland, Australia, ²Queensland Centre for Mental Health Research, Archerfield, Queensland, ³University of Washington, Institute for Health Metrics and Evaluation, Seattle, WA, ⁴National Drug and Alcohol Research Centre, Sydney, Australia

33 A brief form of the SOAPP-R
Stephen Butler¹, Stacey McCaffrey¹, Simon Budman¹, Ryan Black¹, ¹Inflexxion, Inc, Waltham, MA
**Strengths can decrease likelihood of drug use among high-risk rural women following brief intervention**

Katherine Marks¹, Justin Strickland¹, Carl Leukefeld¹, Carrie Oser¹, Michele Staton², ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Medicine, Lexington, KY

**Severity of dependence scale: Diagnostic cut-off for pharmaceutical opioid dependence**

Raimondo Bruno¹, Amy Peacock², Briony Larance³, Nichola Lintzeris⁴, Robert Ali⁵, Louisa Degenhardt⁶, ¹University of Tasmania, Sydney, New South Wales, Australia, ²National Drug and Alcohol Research Centre, Sydney, Australia, ³University of South Wales, Sydney, Australia, ⁴Drug and Alcohol Services, South Eastern Sydney Local Health District, Sydney, Australia, ⁵WHO Collaborating Centre for the Treatment of Drug and Alcohol Problems, Adelaide, South Australia, ⁶National Drug and Alcohol Research Centre, Sydney, Australia

**A prospective, observational study of hospitalized persons who inject drugs with severe infections: Substance use severity, risk behaviors, and motivation for treatment**

Laura Fanucchi¹, Michelle Lofwall², Paul Nuzzo¹, Sharon Walsh¹, ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Medicine, Lexington, KY

**Developing domains of negative consequences of regular heroin use**

Tabitha Moses¹, Eric Woodcock¹, James Lister¹, Leslie Lundahl¹, Mark Greenwald¹, ¹Wayne State University, Detroit, MI

**SEDATIVE, HYPNOTICS, INHALANTS**

**Cues and stressors but not primes produce reinstatement of midazolam-maintained behavior in rats**

James Cook¹, Barak Gunter², Sally Huskinson¹, Kevin Freeman¹, James Rowlett¹, ¹University of Mississippi Medical Center, Jackson, MS, ²Vanderbilt University Medical Center, Nashville, TN

**An investigation of the reinforcing effects of diazepam and midazolam in rats trained to self-administer heroin**

Sharon Smith¹, Royston Gray², David Heal¹, ¹RenaSci Ltd, Nottingham, Nottinghamshire, United Kingdom, ²GW Pharmaceuticals PLC, Cambridge, UK, United Kingdom

**A comparison of the physical dependence syndromes produced in rats by morphine and diazepam**

David Heal¹, Simon Goddard², Sharon Smith¹, ¹RenaSci Ltd, Nottingham, Nottinghamshire, United Kingdom, ²RenaSci Ltd, Nottingham, Nottinghamshire

**Subjective abuse potential of brivaracetam compared to alprazolam, levetiracetam, and placebo in recreational CNS depressant users**

Edward Sellers¹, Armel Stockis², Kerri Schoedel¹, ¹University of Toronto, Toronto, ON, Canada, ²UCB Pharma, Belgium, ³Altreos Research Partners Inc., Toronto, ON, Canada

**Driving under the influence of benzodiazepines among high-risk rural women**

Matt Webster¹, Megan Dickson¹, Michele Staton², Carl Leukefeld¹, ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Medicine, Lexington, KY
Toxic effects of solvent inhalants on liver and kidney functions in rats
A. Elkoussi, Assiut College of Medicine, Assiut, Egypt, Egypt

PHARMACOKINETICS

Incremental validity of estimated marijuana grams as a predictor of marijuana-related problems and urine cannabinoid level: Evidence from a clinical trial
Rachel Tomko¹, Nathaniel Baker¹, Erin McClure¹, Kevin Gray¹, Medical University of South Carolina, Charleston, SC

PK/PD correlation in hydrocodone ER abuse potential studies
Naama Levy-Cooperman¹, Michael Gillespie², Megan Shram¹, Laura Rabinovich-Guilatt², Kerri Schoedel¹, Altreos Research Partners Inc., Toronto, ON, Canada, Teva Pharmaceuticals, Inc., Malvern, PA

Assessment of the pharmacokinetic-pharmacodynamic relationship of the rate of drug onset and abuse liability with intranasally administered oxycodone and hydrocodone
Sarah Boden¹, Megan Shram², Mark Leggas¹, Paul Nuzzo¹, Salvatore Colucci³, Steve Harris³, Sharon Walsh¹, University of Kentucky, Lexington, KY, Altreos Research Partners Inc., Toronto, ON, Canada, Purdue Pharma L.P., Stamford, CT

Characterization of recombinant humanized anti-cocaine monoclonal antibody from 3 clones: Selecting the master cell bank
Rose Webster¹, Fatima Saeed², Hanna Wetzl¹, Cinder Cohen³, William James Ball, Jr¹, Andrew Norman², University of Cincinnati, Cincinnati, OH, University of Cincinnati College of Medicine, Cincinnati, OH

CHEMISTRY

Diarylurea-based allosteric modulators of the cannabinoid CB1 receptor
Yanan Zhang¹, Thuy Nguyen¹, Ann Decker¹, Thomas Gamage¹, Jun-Xu Li², Brian Thomas¹, Jenny Wiley¹, Terrence Kenakin³, RTI International, Research Triangle Park, NC, State University of New York at Buffalo, Buffalo, NY, University of North Carolina at Chapel Hill, Chapel Hill, NC

4-Hydroxyphenylglycine derivatives as agonists for the orphan receptor GPR88, a potential target for drug abuse
Chunyang Jin¹, Ann Decker¹, Tiffany Langston¹, RTI International, Research Triangle Park, NC

Benzylideneoxymorphone: A new lead for development of bifunctional mu/delta opioid receptor ligands
Andrea Devereaux¹, Jason Healy², Nicholas Griggs³, John Traynor³, Rae Matsumoto⁴, Andrew Coop⁵, Christopher Cunningham⁶, Concordia University Wisconsin School of Pharmacy, Neenah, WI, Thomas Jefferson University, Philadelphia, PA, University of Michigan, Ann Arbor, MI, Touro University California, Vallejo, CA, University of Maryland School of Pharmacy, Baltimore, MD, Concordia University Wisconsin, Mequon, WI

Modular total synthesis approach towards salvinorin A-inspired designer opioids
Alexander Sherwood¹, Samuel Williamson², Rachel Crowley³, Thomas Prisinzano³, University of Kansas, Lawrence, KS, University of Kansas, Department of Medicinal Chemistry, Lawrence, KS, University of Kansas School of Pharmacy, Lawrence, KS
The Fab fragment of a humanized anti-cocaine monoclonal antibody: Development of a quality control method and its application to an ELISA
Cinder Cohen1, Hanna Wetzel2, Fatima Saeed1, Terence Kirley1, Andrew Norman1, Jordan Marckel1, William Ball1, Rose Webster1, 1University of Cincinnati College of Medicine, Cincinnati, OH, 2University of Cincinnati, Cincinnati, OH

STIMULANTS: PRECLINICAL

Dramatically slower onset of DAT occupancy by dasotraline compared to methylphenidate
Robert Lew1, Cristian Constantinescu2, Daniel Holden3, Evan Morris3, Richard Carson3, Vincent Carroll4, Olivier Barret2, Gilles Tamagnan2, Kenneth Koblan1, Seth C. Hopkins1, 1Sunovion Pharmaceuticals Inc., Marlborough, MA, 2Molecular NeuroImaging LLC, New Haven, CT, 3Yale University, New Haven, CT, 4Institute for Neurodegenerative Disorders, New Haven, CT

Potential abuse liability of orally self-administered methylphenidate in HIV-1 transgenic rats
Steven Harrod1, Hailong Li1, Jessica Illenberger1, Robert Roscoe1, Srimal Samarana-roo-dee-ya-ke1, Parastoo Hashemi1, Charles Mactutus1, Rosemarie Booze1, 1University of South Carolina, Columbia, SC

Effects of GABA A receptor positive allosteric modulators on the behavioral and neurochemical effects of methamphetamine in rhesus monkeys
Lais Berro1, Monica Andersen2, Cydney Eisenberg1, Melis Odabas-Geldiay1, Leonard Howell1, 1Emory University, Atlanta, GA, 2Universidade Federal de Sao Paulo, Department of Psychobiology, Sao Paulo, Brazil

Reinforcing effects of L-methamphetamine in nonhuman primates
Stephen Kohut1, Bruce Blough2, Jack Bergman3, 1McLean Hospital / Harvard Medical School, Belmont, MA, 2RTI International, Research Triangle Park, NC, 3ADARC - McLean Hospital, Belmont, MA

Continuous D-amphetamine treatment during intermittent cocaine intake reduces addiction-like behaviors
Florence Allain1, Anne-Noël Samaha1, 1Université de Montréal, Department of Pharmacology and Physiology, Outremont, QC, Canada

Social rank change and dopamine in pigs
Hui Cheng1, Abiy Mohammed1, Anthony Pease1, Joshua Gehrke1, George Bohart1, Michael Nader2, James Anthony1, 1Michigan State University, Lansing, MI, 2Wake Forest School of Medicine, Winston-Salem, NC

The effects of social influence on cocaine self-administration in female rats
Mark Smith1, Andrea Robinson1, Gaylen Fronk1, Huailin Zhang1, Scott Tonidandel1, 1Davidson College, Davidson, NC

Contributions of central dopamine mechanisms to antipsychotic-induced dopamine supersensitivity
Alice Servonnet1, Pierre-Paul Rompré2, Anne-Noël Samaha3, 1Neuroscience Department; Université de Montréal, Montreal, QC, Canada, 2Neuroscience Department, Université de Montréal, Montreal, QC, Canada, 3Université de Montréal, Department of Pharmacology and Physiology, Outremont, QC, Canada
Regulation of goal-directed action selection by cocaine, MDMA, and orbitofrontal BDNF-trkB
Elizabeth Pitts¹, Shannon Gourley¹, ¹Emory University, Atlanta, GA

Pathologic changes in the NAc post experimental TBI and susceptibility to the rewarding effects of a subthreshold dose of cocaine following brain injury
Marquis Maynard¹, Lee Anne Cannella², Scott Rawls³, Servio Ramirez², ¹Temple University Lewis Katz School of Medicine, Philadelphia, PA, ²Lewis Katz School of Medicine at Temple University, Philadelphia, PA, ³Temple University, Philadelphia, PA

Dexamethasone attenuates the enhanced rewarding effects of cocaine following experimental TBI
Lee Anne Cannella¹, Steven F. Merkel¹, Allison Andrews², Evan M. Lutton¹, Roshanak Razmpour¹, Servio Ramirez², ¹Lewis Katz School of Medicine at Temple University, Philadelphia, PA, ²Temple University, Philadelphia, PA

Evaluating the cellular effects of drugs of abuse using a next generation microfluidic model that recapitulates the human neurovascular unit
Allison Andrews¹, Servio Ramirez², ¹Temple University, Philadelphia, PA, ²Temple University, Philadelphia, PA

Cocaine-induced changes in perineuronal net and parvalbumin cell intensity in the rat medial prefrontal cortex
Barbara Sorg¹, Megan Slaker², Kyrie-Anne Reyes³, ¹Washington State University, Pullman, WA, ²Medical College of Wisconsin, Milwaukee, WI, ³Oregon Health and Science University, Hillsboro, OR

Dynorphin counteracts the effects of orexin in the paraventricular nucleus of the thalamus
Remi Martin-Fardon¹, Marsida Kalupi¹, Friedbert Weiss¹, Olivier George¹, Paul Schweitzer¹, Alessandra Matzeu¹, ¹Scripps Research Institute, La Jolla, CA

Activation of orexin neurons following orexin-A administration in the paraventricular nucleus of the thalamus in animals with a history of cocaine dependence
Alessandra Matzeu¹, Friedbert Weiss¹, Remi Martin-Fardon¹, ¹Scripps Research Institute, La Jolla, CA

Role of anterior dorsal lateral hypothalamic area perineuronal nets in the acquisition of cocaine-induced conditioned place preference and self-administration
J. Blacktop, Washington State University, Pullman, WA

A novel neuropeptide regulator of cocaine self-administration
James Kasper¹, David McCue¹, Jonathan Hommel¹, ¹University of Texas Medical Branch, Galveston, TX

Brain region and mechanism underlying 17beta-estradiol-potentiated reinstatement of cocaine-seeking behavior in female rats
Elizabeth Doncheck¹, Margot DeBaker¹, Luke Urbanik¹, Laura Barron¹, Gage Liddiard¹, Jennifer Tuscher², Karyn Frick², Qing-song Liu¹, Cecilia Hillard², John Mantsch¹, ¹Marquette University, Milwaukee, WI, ²University of Wisconsin-Milwaukee, Milwaukee, WI, ³Medical College of Wisconsin, Milwaukee, WI

Mechanisms of caffeine self-administration in rats
Curtis Bradley¹, Moss Sanders¹, Amy Patterson¹, Samantha Malone¹, Amanda Smith¹, Matthew Palmatier¹, ¹East Tennessee State University, Johnson City, TN
Effect of adolescent caffeine self-administration on adult nicotine self-administration in rats
Jessica Golson¹, Amy Patterson¹, Moss Sanders¹, Samantha Malone¹, Curtis Bradley¹, Matthew Palmatier¹, ¹East Tennessee State University, Johnson City, TN

Variable response to nucleus accumbens deep brain stimulation in a rat model of alcohol drinking
Angela Henricks¹, Nicholas Deveau¹, Lucas Dwiel¹, Amanda Simon¹, Alan Green¹, Wilder Doucette¹, ¹Dartmouth College, Hanover, NH

Considering sleep-related fatigue as a motivating factor in substance use
Brett M Millar¹, Christian Grov¹, Jeffrey Parsons², ¹CUNY Graduate School of Public Health and Health Policy, New York, NY, ²Hunter College, CUNY, New York, NY

Cognitive enhancer modafinil: A pharmacological intervention to decrease behavioral economic demand for alcohol
Sarah Snider¹, Quan Phung², Stephen LaConte², Patsy Marshall², ¹Addiction Recovery Research Center, Roanoke, VA, ²Virginia Tech Carilion Research Institute, Roanoke, VA

What predicts underage drinking? Investigating patterns of attachment, saying ‘no’, and alcohol expectancies
Laura Anderson¹, Kiri Patton², Jeanie Sheffield², Andrew Wood³, Jason Connor², Matthew Gullo², ¹University of Queensland, Brisbane, Austria, Australia, ²University of Queensland, Brisbane, Austria, ³University of the Sunshine Coast, Queensland, Australia

Goal commitment predicts outcome for adolescents with alcohol use disorder
Yifrah Kaminer¹, Christine Ohannessian¹, James McKay², Rebecca Burke³, Kaitlin Flannery³, ¹University of Connecticut School of Medicine, Farmington, CT, ²University of Pennsylvania, Philadelphia, PA, ³University of Connecticut, Storrs, CT

The structure of neuroticism and its relationship to problematic drinking in youth
Nina Pocuca¹, Leanne Hides², Catherine Quinn³, Melanie White², Louise Mewton², ¹University of Queensland, Brisbane, Austria, Australia, ²University of Queensland, Brisbane, Austria, ³Centre for Youth Substance Abuse Research, Herston, Queensland

Effectiveness of a brief Internet-based alcohol intervention among risky college drinkers: Four-arm randomized controlled trial
Andre Bedendo¹, Andre Luiz Monezi Andrade², Ana Regina Noto², ¹Universidade Federal de Sao Paulo, Sao Paulo, Brazil, ²Universidade Federal de Sao Paulo, Department of Psychobiology, Sao Paulo, Brazil

Heavy drinking mediates the association between child maltreatment and violence victimization in adolescence, but not adulthood
Kathryn Smith¹, Philip Smith², Lindsay Oberleitner³, Emily Grekin⁴, Sherry McKee⁵, ¹Columbia University Medical Center, New York State Psychiatric Institute, New York, NY, ²CUNY School of Medicine, New York, NY, ³Yale University, Milford, CT, ⁴Wayne State University, Detroit, MI, ⁵Yale School of Medicine, New Haven, CT
Unpacking the association between alcohol use and intimate partner violence in sub-Saharan Africa
M. Claire Greene¹, Jeremy Kane¹, Wietse Tol¹, ¹Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

The contribution of COMT genotype and childhood trauma to alcohol approach and altruism in individuals with AUD
Jennifer Mitchell¹, Dawn Weinstein¹, Josh Woolley¹, ¹UCSF, San Francisco, CA

Approach bias modification training during detoxification: 3-Month outcomes of a pilot RCT
Victoria Manning¹, Petra Staiger², Hall Kate³, Joshua Garfield⁴, Daniel Lubman⁴, Pinar Thorn⁴, Leung Daniel², Jarrad Lum², Antonio Verdejo-Garcia⁵, ¹Turning Point, Fitzroy, Victoria, Australia, ²Deakin University, Burwood, Australia, ³Deakin University, Burwood, Australia, ⁴Turning Point, Fitzroy, Victoria, ⁵Monash University, Victoria, Australia

Project engage program evaluation
Anna Pecoraro¹, Terry Horton², Bailey Ingraham², Beverly Wilson², Claudine Jurkovitz², George Woody¹, ¹University of Pennsylvania, Philadelphia, PA, ²Christiana Care Health System, Newark, DE

Integration of transcendental meditation into alcohol use disorder treatment
Jan Gryczynski¹, Robert Schwartz¹, courtney Nordeck¹, Marc Fishman², Kevin O’Grady³, ¹Friends Research Institute, Baltimore, MD, ²Mountain Manor Treatment Center, Emmitsburg, MD, ³University of Maryland-Psychology, College Park, MD

Evaluation of the factor structure of the Brazilian-Portuguese version of the Readiness to Change questionnaire applied to problem drinkers in the beginning of a web-based intervention
Maria Lucia Souza-Formigoni¹, Andre Luiz Monezi Andrade², Henrique Gomide³, Laísa M. A. Sartes³, Leonardo Martins³, Telmo MotaEonzani³, Roseli Boerngen Lacerda⁴, ¹Universidade Federal de São Paulo, São Paulo, Brazil, ²Universidade Federal de São Paulo, Department of Psychobiology, São Paulo, Brazil, ³Universidade Federal de Juiz de Fora, Minas Gerais, Brazil, ⁴Universidade Federal do Paraná, Curitiba, Brazil

Body mass index and prevalence of obesity among individuals with substance dependence
Abigail Matthews¹, Jacqueline King¹, Aimee Wahle¹, Lian Hu¹, Dikla Blumberg¹, ¹The Emmes Corporation, Rockville, MD

Impact of quality of life and distress tolerance on successful behaviour change in separate cohorts of individuals with alcohol use disorder and obesity
Daisy Thompson-Lake¹, Richard De La Garza, II², Peter Hajek³, ¹Queen Mary University of London, London, UK, ²Baylor College of Medicine, Houston, TX, ³Queen Mary University of London, London, UK

Eating behaviors, weight loss practices and marijuana use among emerging adults
Denise Vidot¹, Krystal Sardinas², Abenaa Jones³, Sarah Messiah¹, ¹University of Miami, Miami, FL, ²University of Miami Miller School of Medicine, Miami, FL, ³Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD
HIV

90  
Short circuit: Disaggregation of adrenocorticotropic hormone and cortisol levels in HIV-positive methamphetamine users  
Adam Carrico¹, Deborah Jones¹, Violeta Rodriguez¹, Mahendra Kumar¹, ¹University of Miami, Miami, FL

91  
Association between cumulative marijuana use and executive function and processing speed in HIV-positive and HIV-negative men  
Chukwuemeka Okafor¹, Michael Plankey², Xinguang Chen³, Pamela J Surkan⁴, Steve Shoptaw¹, Eileen Martin⁵, Ronald Cohen⁶, Ned Sacktor⁷, Robert L Cook³,¹UCLA, Los Angeles, CA, ²Georgetown University Medical Center, Division of Infectious Diseases, Washington, DC, ³College of Medicine, University of Florida, Gainesville, FL, ⁴Johns Hopkins Bloomberg School of Public Health, Social and Behavioral Interventions Program, Baltimore, MD, ⁵Rush University Medical Center, Chicago, IL, ⁶University of Florida, Gainesville, FL, ⁷Johns Hopkins University, Department of Neurology, Baltimore, MD

92  
Comparison of motives for cannabis initiation and continued use in HIV+ and HIV-cannabis users  
Sheri Towe¹, Bianca Martin¹, Christina Meade¹, ¹Duke University School of Medicine, Durham, NC

93  
Understanding syringe distribution policy change in Baltimore, MD: Effects on syringe distribution and HIV incidence among people who inject drugs  
Sean Allen¹, Ju Park¹, Brian Weir¹, David Holtgrave¹, Susan Sherman¹, ¹Johns Hopkins University, Baltimore, MD

94  
HIV risk behaviors and providing recent injection initiation assistance among people who inject drugs in the San Diego – Tijuana border region  
Claudia Rafful¹, Richard S Garfein¹, Jazmine Cuevas¹, Shelly Sun¹, Sonia Jain¹, Steffanie Stratthedee¹, Dan Werb¹, ¹UCSan Diego, La Jolla, CA

95  
Characteristics of attenders of safer injecting facilities among people who inject drugs in France: Baseline results from the COSINUS cohort study  
Charlotte Kerbran¹, Marc Auriacombe², Marie Jauffret-Roustide³, Laurence Lalanne-Tongio⁴, Perrine Roux⁵, Laelia Briand-Madrid⁶, Antoine Violitch⁷, Patrizia Carrieri⁸, Cecile Denis⁹, ¹Université de Bordeaux, Bordeaux, France, ²Université de Bordeaux, Bordeaux, France, ³INSERM, Marseille, France, ⁴CHU Strasbourg, Paris, France, ⁵University of Pennsylvania, Philadelphia, PA

96  
Prescribing narcotics and recommending medicinal marijuana as incentives to retain patients in HIV care  
Kasey Claborn¹, Elizabeth Aston², Michael Saccoccio¹, Susan Ramsey¹, ¹Rhode Island Hospital, Providence, RI, ²Center for Alcohol and Addiction Studies, Brown University School of Public Health, Providence, RI

97  
Eligibility for heroin-assisted treatment among people who inject opioids and who live with HIV in a Canadian setting  
Jan Klimas¹, Evan Wood², Thomas Kerr¹, huiru dong³, julio montaner³, MJ Milloy³, ¹UCD School of Medicine, Dublin, Ireland, Ireland, ²University of British Columbia, Vancouver, BC, Canada, ³University of British Columbia, Vancouver, BC
Opioid prescribing attitudes and risk mitigation practices in two HIV clinics
Judith Tsui1, Alexander Walley2, Marlene C. Lira2, Debbie Cheng2, Christine Chaisson2, Leah S. Forman2, Jonathan Colasanti3, Jane Liebschutz2, Christopher Shanahan2, Carly Bridden2, Carlos del Rio3, Jeffrey Samet2, 1University of Washington Harborview, Seattle, WA, 2Boston University School of Medicine, Boston, MA, 3Emory University, Atlanta, GA

Cost of an integrated treatment program for opiate addiction and HIV in Ho Chi Minh city, Vietnam
Cecile Denis1, Julie Becher1, Thanh Doan2, Huy Tran2, Loan Nguyen2, Trung Nguyen2, Lisa Huang2, Vincent Trias2, Augustin Voisin3, Marc Auriacombe4, Gilles Raguin2, Son Mai Thi Hoai5, Giang Le Truong5, Jean-Pierre Daulouede5, Charles O'Brien1, David Metzger1, 1University of Pennsylvania, Philadelphia, PA, 2Expertise France, France, 3Bizia, 4Université de Bordeaux, Bordeaux, France, 5HCMC AIDS Committee, Ho Chi Minh City, Vietnam

The importance of self-medication with substances in people with HIV infection and substance dependence
Margo Godersky1, Alexander Walley2, Timothy Heeren1, Michael Winter1, Meg Sullivan2, Seville Meli1, Richard Saitz1, 1Boston University School of Public Health, Boston, MA, 2Boston University School of Medicine, Boston, MA

Developing youth-informed media to increase HIV testing in emergency departments
Robert Freeman1, Ian Aronson2, Tonya Taylor3, Lisa Marsch4, Theodore Bania5, 1New York University School of Medicine, New York, NY, 2Digital Health Empowerment / NDRI, Brooklyn, NY, 3State University of New York Downstate Medical Center, Brooklyn, NY, 4Geisel School of Medicine at Dartmouth, Hanover, NH, 5Mount Sinai School of Medicine, New York, NY

Improving identification of social harm among substance abusers in HIV trials
K. Dugosh, Treatment Research Institute, Philadelphia, PA

The prevalence and patterns of substance use across age cohorts in HIV+ adults within the state of Florida
Zachary Mannes1, Huiyin Lu1, Nicole Ennis Whitehead1, Robert Cook1, 1University of Florida, Gainesville, FL

Opioid craving and HIV care cascade outcomes
Bulat Idrisov1, Karsten Lunze1, Debbie Cheng1, Elena Blokhina2, Natalia Gnatienko1, Emily Quinn1, Alexander Walley1, Carly Bridden1, Kendall Bryant3, Dmitry Lioznov4, Evgeny Krupitsky5, Jeffrey Samet1, 1Boston University School of Medicine, Boston, MA, 2First Pavlov State Medical University of St. Petersburg, St. Petersburg, Russia, Russian Federation, 3NIAAA, Bethesda, MD, 4First Pavlov State Medical University of St. Petersburg, St. Petersburg, Russia, 5St. Petersburg Bekhterev Research Psychoneurological Institute, St. Petersburg, Russia, Russian Federation
**Is substance use associated with HIV cascade outcomes in Latin America?**
Raquel De Boni¹, Meridith Blevins², Bryan E. Shepherd³, Beatriz Grinsztejn⁴, Carina Cesar⁴, Claudia Cortes⁵, Denis Padgett⁶, Eduardo Gotuzzo⁷, Pablo F. Belaunzarán-Zamudio⁸, Peter F. Rebeiro⁷, Stephany N. Duda², Catherine C. McGowan¹, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil, Brazil, ²Vanderbilt University Medical Center, Nashville, TN, ³INI Evandro Chagas, Fiocruz, Brazil, ⁴Fundacion Huesped, Buenos Aires, Argentina, ⁵University of Chile School of Medicine, Santiago, Chile, ⁶Caja Costarricense de Seguro Social, San José, Costa Rica, ⁷Universidad Peruana Cayetano Heredia, Lima, Peru, ⁸National Institute of Health Sciences and Nutrition “Salvador Zubirán, Tlalpan, Mexico

**Impact of multi-session SBIRT within primary care for people living with HIV/AIDS**
David Metzger¹, Sumedha Chhatre¹, Carolyn Carpenedo², Karen Dugosh², ¹University of Pennsylvania, Philadelphia, PA, ²Treatment Research Institute, Philadelphia, PA

**Associations between past month stimulant use and HIV-status in a representative sample of adults in the United States**
Emily Greene¹, Pia Mauro¹, Silvia Martins¹, ¹Columbia University, New York, NY

**LITERATURE REVIEW**

**Multi-setting community-based interventions to reduce population level harms arising from alcohol and other drug use**
Emily Stockings¹, Luke Wolfenden², Kate Bartlem³, Conor Gilligan³, Rebecca Hodder², Melanie Kingsland², John Wiggers², ¹University of South Wales, Sydney, Australia, ³Hunter New England Local Health District, Newcastle, New South Wales, ²University of Newcastle, Australia, Newcastle, New South Wales

**Diagnosis and treatment of Wernicke’s encephalopathy in patients with alcohol use disorder: Literature review and case series**
Anne-Sophie Wiet¹, Jacques Dubernet¹, Fuschia Serre¹, Melina Fatseas², Elizabeth Monthioux³, Sophie Auriacombe⁴, Marc Auriacombe¹, ¹Université de Bordeaux, Bordeaux, France, ²Centre Hospitalier Charles Perrens, Bordeaux, France, ³Centre Hospitalier Charles Perrens, Bordeaux, France, ⁴Université de Bordeaux, Bordeaux, France

**Health effects of electronic cigarettes: A systematic review of the literature**
Ginnie Ng¹, Robert Schwartz¹, Alexa Minichiello², Laurie Zawertailo³, ¹University of Toronto, Toronto, ON, ²Centre for Addiction and Mental Health, Toronto, ON, ³Centre for Addiction and Mental Health, Toronto, ON, Canada

**A mapping review of take-home naloxone for people released from correctional settings**
Meredith Horton¹, Rebecca McDonald², Traci Green³, Suzanne Nielsen⁴, John Strang⁵, Louisa Degenhardt⁶, Sarah Larney⁶, ¹New York University, New York, NY, ²King’s College, London, UK, ³Boston University School of Medicine, Boston, MA, ⁴University of South Wales, Sydney, Australia, ⁵King’s College, London, UK, United Kingdom, ⁶National Drug and Alcohol Research Centre, Sydney, Australia

**Extended-release injectable naltrexone for opioid use disorder: A systematic review**
Brantley Jarvis¹, August Holtyn¹, Shrinidhi Subramaniam², Kenneth Silverman², ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins University, Baltimore, MD

**Review of public-access data from human abuse potential studies of abuse-deterrent formulations**
K. Schoedel, Altreos Research Partners Inc., Toronto, ON, Canada
Global prevalence of illicit and prescription opioid misuse
Jerisha Ellerstrand1, Janni Leung1, Alize Ferrari1, Whiteford Harvey2, Louisa Degenhardt3, 1Queensland Centre for Mental Health Research, Archerfield, Queensland, Australia, 2Queensland Centre for Mental Health Research, Archerfield, Queensland, 3National Drug and Alcohol Research Centre, Sydney, Australia

Off-label pharmacotherapy in substance use disorders
inmaculada Rivas Puy1, Merce Rodriguez Barriba4, Teresa Burguete3, Begoña Pascual Arce4, Victoria Olles3, Teresa Campillo5, Milagrosa Blanca Tamayo4, Ramon Ribera5, Gemma Hurtado Ruiz5, 1IMSP Badalona, Barcelona, Spain, Spain, 2Catalan Health Service, 3IMSP Badalona, Barcelona, Spain, 4Badalona Serveis Assistencials, 5Parc de Salut Mar, Barcelona, Spain

Contingency management and pharmacological treatment for stimulant users: A review
Vitor Tardelli1, Thiago Fidalgo2, Dartiu Silveira2, Adam Bisaga3, 1Universidade Federal de Sao Paulo, Sao Paulo, Brazil, Brazil, 2Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 3Columbia University and NYSPI, New York, NY

Pathway from adverse childhood experiences to problematic substance use - investigating emotional dysregulation
A. Ralph, Centre for Youth Substance Abuse Research, Herston, Queensland, Australia

Comparing integrated psychosocial treatment for co-occurring psychiatric and substance use disorders with addiction-focused treatment: A meta-analysis
Elizabeth Saunders1, Meagan Dechen2, 1The Dartmouth Institute, Lebanon, NH, 2Geisel School of Medicine at Dartmouth, Hanover, NH

Sociocultural considerations of prescription drug misuse among racial/ethnic minorities: A systematic review
Bridgette Peteet1, Brittany Miller-Roenigk1, Caravella McCuistian1, Cami Mosley1, 1University of Cincinnati, Cincinnati, OH
**Oral Communications 11**

**DRUG ENVIE? CRAVING**

Chairs: Julie McCarthy and Hedy Kober

11:15 *Craving predicts drug use: A quantitative meta-analysis*

Hedy Kober¹, Rebecca Boswell², ¹Yale School of Medicine, New Haven, CT, ²Yale University, New Haven, CT

11:30 *Reduced interhemispheric executive control network coupling and increased craving in cocaine users*

Julie McCarthy¹, Justin Shepherd¹, Scott Lukas¹, Amy Janes¹, ¹McLean Hospital, Harvard Medical School, Belmont, MA

11:45 *Intermittent intake of rapid cocaine injections promotes incubation of drug craving*

Aliou Badara Gueye¹, Florence Allain¹, Anne-Noël Samaha¹, ¹Université de Montréal, Department of Pharmacology and Physiology, Outremont, QC, Canada

12:00 *Augmenting endogenous glutamate within infralimbic cortex attenuates the incubation of cocaine-craving in rats*

Christina Shin¹, Taylor Templeton¹, Ellen Gable¹, Alvin Chiu¹, Jennifer Kim¹, Philip Vieira², Tod Kippin¹, Karen Szumlinski¹, ¹UCSF, San Francisco, CA, ²California State University, Los Angeles, CA

---

**Oral Communications 12**

**VIVE LA (SEX) DIFFERENCE!**

Chairs: Yasmin Zakiniaeiz and Teresa Franklin

10:00 *Sex differences in subjective evaluations of reduced nicotine cigarettes*

Nicole Petersen¹, Paul Faulkner¹, Dara Gahremani¹, Chelsea Cox², Edythe London¹, ¹UCLA, Los Angeles, CA, ²University of Illinois, Chicago, IL

10:15 *The impact of sex on brain responses to smoking cues: Replication in a new cohort*

Teresa Franklin¹, Nathan Hager¹, Kanchana Jagannathan¹, Kelly Dumais², Amy Janes², Michael Gawrysiak³, Heather Pater¹, Joyce Wong¹, H Rao¹, Anna Rose Childress¹, Reagan Wetherill¹, ¹University of Pennsylvania, Philadelphia, PA, ²McLean Hospital, Harvard Medical School, Belmont, MA, ³Delaware State University, Wilmington, DE

10:30 *Sex differences in dorsolateral prefrontal cortex dopamine release and the relationship to tobacco smoking treatment outcomes*

Yasmin Zakiniaeiz¹, Ansel Hillmer¹, Laura Goetz¹, Evan Morris¹, David Matuskey¹, Nabeel Nabulsi¹, Yiyun Henry Huang¹, Sherry McKee², Kelly Cosgrove¹, ¹Yale University, New Haven, CT, ²Yale School of Medicine, New Haven, CT
**Ovarian hormones are associated with stress reactivity and smoking in human laboratory study**
Mackenzie Peltier¹, Terril Verplaetse², Sherry Mc Kee², ¹Louisiana State University, Baton Rouge, LA, ²Yale School of Medicine, New Haven, CT

**The impact of sex, dose and inter-trial interval upon methamphetamine preference of rats**
Mari Purpura¹, Philip Vieira², Julia Adams¹, Christina Barkas¹, Sara Ghobadi¹, Mark Bocz³, Serina Williams¹, Tod Kippin¹, ¹UCSF, San Francisco, CA, ²California State University, Los Angeles, CA

**Sex differences in early predictive biomarkers for cocaine seeking in adolescence and adulthood**
Chloe Jordan¹, Susan Andersen¹, McLean Hospital, Harvard Medical School, Belmont, MA

**The effects of estradiol and progesterone on heroin self-administration in ovariectomized rats**
Andrea Robinson¹, Huailin Zhang¹, Alexander Casimir¹, Mark Smith¹, Davidson College, Davidson, NC

**Stress- and sex-dependent changes in miRNA expression and their potential impact on opioid addiction**
Maria Mavrikaki¹, Lorena Pantano², David Norris¹, Maximilian A Rogers-Grazado³, Sami S Amr⁴, Elena Chartoff¹, ¹McLean Hospital, Harvard Medical School, Belmont, MA, ²Harvard School of Public Health, Boston, MA, ³Translational Genomics Core, Partners Healthcare Personalized Medicine, Cambridge, MA

---

**Oral Communications 13**

**BRISER LES CHAÎNES: CRIMINAL JUSTICE**

Chairs: Diane Morse and David Festinger

**Juvenile offender’s family and friends substance abuse**
Carl Leukefeld¹, Megan Dickson¹, Michel Tindall², Matt Webster², Carrie Oser², Hannah Knudsen¹, Katherine Marks¹, Jennifer Havens³, ¹University of Kentucky, Lexington, KY, ²Center on Drug and Alcohol Research University of Kentucky, Lexington, KY, ³University of Kentucky College of Medicine, Lexington, KY

**Drug use and mental health of caregivers of youth in the juvenile drug court: Implications for holistic family-based intervention**
Anna Harrison¹, Marina Tolou-Shams¹, ¹UCSF, San Francisco, CA
10:30 *FOCUS on women: Probation and Women's Initiative Supporting Health partnership targets legal and medical outcomes*
Diane Morse¹, Addie Bardin¹, Catherine Cerulli², ¹University of Rochester School of Medicine, Rochester, NY, ²University of Rochester School of Medicine and University of Rochester Susan B. Anthony Center, Rochester, NY

10:45 *Among women in drug court, marginally housed and marijuana only users at more risk for adversity*
Catherine Woodstock Striley¹, Jasmine Mack¹, Linda Cottler¹, ¹University of Florida, Gainesville, FL

11:00 *Patient perceptions of extended-release naltrexone, methadone, and re-entry following release from a large NYC jail*
Mara Flannery¹, Ryan McDonald², Melissa Velasquez², Joshua Lee², ¹NYU Langone Medical Center, New York, NY, ²New York University School of Medicine, New York, NY

11:15 *Delivering medication-assisted treatment in drug courts: A statewide evaluation*
David Festinger¹, Karen Dugosh², David Gastfriend², Brook Singletary², ¹University of Pennsylvania, Philadelphia, PA, ²Treatment Research Institute, Philadelphia, PA

11:30 *Results of a double blind placebo-controlled randomized trial of extended-release naltrexone among HIV+ inmates with opioid dependence*
Sandra Springer¹, Russell Barbour², Marwan Azar¹, Tiara Winn³, Frederick Alice¹, Angela Di Paola³, ¹Yale School of Medicine, New Haven, CT, ²Yale School of Public Health, New Haven, CT, ³Yale School of Medicine-AIDS Program, New Haven, CT

11:45 *Access to opioid-agonist therapy among incarcerated people with opioid-use disorder in Vancouver, Canada*
Nikki Bozinoff³, Kora DeBeck², M-J Milloy², Ekaterina Nosova², Thomas Kerr³, Evan Wood⁴, Kanna Hayashi³, ¹Centre for Addiction and Mental Health, Toronto, ON, Canada, ²British Columbia Centre for Excellence in HIV/AIDS, Vancouver, BC, ³University of British Columbia, Vancouver, BC, ⁴University of British Columbia, Vancouver, BC, Canada
Tuesday, June 20, 2017

Symposium VII

PAIN AND ADDICTION: OPIOIDS AND BEYOND

Chairs: Martin Cheatle and Peggy Compton

10:00  Bidirectional relations between pain, nicotine withdrawal, and tobacco smoking
J. Ditre, Syracuse University, Department of Psychology, Syracuse, NY

10:25  The relationship between alcohol use and chronic pain among people living with HIV
J. Merlin, University of Alabama, Birmingham, AL

10:50  Phenotypic and genotypic characteristics of opioid use disorder in patients with chronic pain
M. Cheatle, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA

11:15  Determining the efficacy of a psychosocial pain management intervention in men and women receiving substance use disorder treatment
M. Ilgen, University of Michigan, Ann Arbor, MI

11:40  DISCUSSANT: Pain and addiction: Future research directions
P. Compton, Georgetown University, Washington, DC

Symposium VIII

UNDERSTANDING ALCOHOL AND NICOTINE CO-USE: RAT, NON-HUMAN PRIMATE, AND HUMAN LABORATORY FINDINGS

Chairs: Elise Weerts and David Drobes

10:00  Co-use of alcohol and nicotine: Impact on responses to naltrexone and varenicline
A. Le, CAMH, Toronto, ON, Canada

10:20  Concurrent self-administration of alcohol and nicotine: Effects of abstinence and changing drug concentrations
E. Weerts, Johns Hopkins University School of Medicine, Baltimore, MD

10:40  Alcohol and nicotine interactions: Cue reactivity and pharmacological effects on drug-use motivation
D. Drobes, Moffitt Cancer Center, Tampa, FL
Tuesday, June 20, 2017

CPDD Outreach Event – Moisson Montréal
Lobby
11:30 - 1:30 PM

Meet in Lobby
(Advanced registration requested. Contact Colleen Hanlon or Jessica Weafer)

Media Forum
Outremont
12:15 - 2:15 PM

WHAT'S HOT? PIVOTAL RESEARCH IN CPDD 2017

Chairs: Margaret Chisolm and Bertha Madras

Introduction to working with the media
B. Madras, McLean Hospital, Belmont, MA

Using verbal and visual story-telling to effectively communicate your research to the public
M. Chisolm, Johns Hopkins School of Medicine, Baltimore, MD

Introduction to each speaker
M. Chisolm, Johns Hopkins School of Medicine, Baltimore, MD

Town Hall
Westmount
12:15 - 2:15 PM

HOPES VS. REALITY: CHALLENGES IN DEVELOPMENT OF A PRODUCT FOR THE TREATMENT OF SUBSTANCE USE DISORDERS

Chairs: Marco Pravetoni and Beatriz Rocha

Regulatory strategy for registration - Starting with the end in mind
B. Rocha, Covance, Princeton, NJ

Operational hurdles in clinical trials: Medication nonadherence and professional subjects
D. McCann, NIH, NIDA, Bethesda, MD

Market access and reimbursement strategy
J. Haddox, Purdue Pharma L.P., Stamford, Connecticut

Development of vaccines for substance use disorders
S. Comer, Columbia University and NYSPI, New York, NY

Industry, government, and academia as a collaborative environment for development of a product for the treatment of substance use disorders
A. Coop, University of Maryland School of Pharmacy, Baltimore, MD
Tuesday, June 20, 2017

Oral Communications 14

GÉNÉTIQUE POTPOURRI

Chairs: Andrew Smith and Mary Jeanne Kreek

2:30  Effects of NAC Homer2 manipulation on methamphetamine reward in B6 mice
Chelsea Brown1, Elissa Fultz1, Tod Kippin1, Karen Szumlinski1, 1UCSF, San Francisco, CA

2:45  Chronic (10-day) immobilization stress has no effect on quantitative AVP and AVPR1B mRNA levels in the male or female Sprague-Dawley rat hypothalamus
Konrad Ben1, Yan Zhou1, Matthew Randesi1, Sanoara Mazid2, Shannon O'Dell2, Bruce McEwen1, Teresa Milner2, Mary Jeanne Kreek1, 1The Rockefeller University, New York, NY, 2Weill Cornell Medicine, New York, NY

3:00  Pharmacogenetic impact of the serotonin 2C receptor (5-HT2CR) Cys23Ser single nucleotide polymorphism on receptor functional capacity
Michelle Land1, Ivana Gaziova1, Kathryn Cunningham1, F. Gerard Moeller2, Lisa Elferink1, Noelle Anastasio1, 1University of Texas Medical Branch, Galveston, TX, 2Virginia Commonwealth University, Richmond, VA

3:15  Distinct subtypes of genetically defined serotonin neurons differentially modulate cocaine reward in mice
Britahny Baskin1, Susan Dymecki1, Kathleen Kantak1, 1Boston University School of Medicine, Boston, MA, 2Harvard Medical School, Boston, MA

3:30  An androgen receptor polymorphism (cag repeats) and risk-taking in veterans
Marc Rosen1, Anne Black2, Janitza Montalvo-Ortiz2, Ifat Levy2, Thomas McMahon2, 1VA Connecticut Healthcare System, West Haven, CT, 2Yale University, New Haven, CT

3:45  Genome-wide association study of therapeutic opioid dosing identifies a novel locus upstream of OPRM1
Andrew Smith1, Kevin Jensen1, Jin Li2, Yaira Nunez1, Lindsay Farrer3, Hakon Hakonarson2, Scott Cook-Sather2, Henry Kranzler2, Joel Gelernter1, 1Yale University, New Haven, CT, 2University of Pennsylvania, Philadelphia, PA, 3Boston University School of Medicine, Boston, MA

4:00  A comprehensive laboratory model of adolescent impulsivity and alcohol use
Matthew Gullo1, Natalie Loxton2, Therese Price2, Jo Voisey1, Ross Young1, Jason Connor1, 1University of Queensland, Brisbane, Australia, 2Griffith University, Brisbane, Australia

4:15  Adverse neighborhoods and genetic risk
Cristina Bares1, Karen Chartier2, Katherine Karriker-Jaffe3, Fazil Aliev2, Brian Mustanski4, Danielle Dick2, 1University of Michigan, Ann Arbor, MI, 2Virginia Commonwealth University, Richmond, VA, 3Alcohol Research Group, Emeryville, CA, 4Northwestern University Feinberg School of Medicine, Chicago, IL
DEUX HEURES OF PAIN


2:30  *Chemotherapy effects on motivated behaviors in male and female rats*
      Luke Legakis¹, S. Stevens Negus¹, ¹Virginia Commonwealth University, Richmond, VA

2:45  *Modification of the antinociceptive effect of opiates by lorcaserin*
      Kumiko Lippold¹, William Dewey², ¹Virginia Commonwealth University, Pharmacology and Toxicology, Richmond, VA, ²Virginia Commonwealth University, Richmond, VA

3:00  *The reinforcing and subjective effects of opioids in opioid users with and without chronic pain*
      Gabriela Madera¹, Jermaine Jones², Jeanne Manubay¹, Shanthi Mogali³, Sandra Comer³, ¹Columbia University, New York, NY, ²Columbia University College of Physicians and Surgeons, New York, NY, ³Columbia University and NYPI, New York, NY

3:15  *Discounting of delayed pain-related and monetary outcomes in chronic pain patients*
      David Andrew Tompkins¹, Andrew Huhn¹, Michael Smith¹, Eric Strain¹, Matthew Johnson², ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins School of Medicine, Baltimore, MD

3:30  *Predictors of long-term opioid use in active duty military: Psychotropics, procedures, pain*
      Jennifer Sharpe Potter¹, Mary Jo Pugh², Maj Joseph K. Maddry³, Col David H. Carnahan³, Vikhyat Bebarta³, ¹University of Texas Health Science Center at San Antonio, San Antonio, TX, ²University of Texas Health Science Center at San Antonio, South Texas Veterans Health Care System, ³San Antonio Military Medical Center, University of Colorado, Fort Sam, Houston, ¹Defense Health Agency, University of Colorado, Boulder, CO

3:45  *Study of gender differences in pain in relation to sleep deprivation*
      Mary Stoermann¹, Douglas Glenn¹, Kelly Barth¹, Balliet Wendy¹, ¹Medical University of South Carolina, Charleston, SC

4:00  *Longitudinal associations of pain and craving with opioid use*
      R. Kathryn McHugh¹, Linda Valeri¹, Margaret Griffin¹, Roger Weiss¹, ¹McLean Hospital, Belmont, MA

4:15  *Pain among individuals with HCV and substance use disorders: Impact of direct-acting antiviral treatment*
      Joseph Goulet¹, Jeanette Tetrault², Amy Justice³, William Becker², ¹Veterans Affairs, West Haven, CT, ²Yale University, New Haven, CT
Tuesday, June 20, 2017

Symposium IX  Outremont
2:30 - 4:30 PM

LEGAL BUT NOT SO SAFE: PREVALENCE, EFFECTS, STRATEGIES FOR PRENATAL ALCOHOL, MARIJUANA AND TOBACCO USE

Chairs: Yukiko Washio and Philip May

2:30  Effects of tobacco use during pregnancy and treatment strategies
C. Oncken, UConn Health, Farmington, CT

2:55  Prenatal cannabis exposure and child neurodevelopment: A tolerated matter
H. El Marroun, Erasmus MC - Sophia Children's Hospital, Rotterdam, Zuid-Holland, Netherlands

3:20  The prevalence and characteristics of fetal alcohol spectrum disorders in the general populations of three different regions of the United States: Findings from the NIAAA-funded collaboration on FASD prevalence
P. May, University of North Carolina, Nutrition Research Institute, Kannapolis, NC

3:45  Maternal risk and protective factors for fetal alcohol spectrum disorders: US and worldwide
C. Chambers, UCSan Diego, La Jolla, CA

4:10  DISCUSSANT: Clinical implications and policy responses to substance use in pregnancy – what can we learn from each other (US and Australian comparisons)?
A. Dunlop, Hunter New England Local Health District, Newcastle, New South Wales, Australia

Symposium X  Westmount
2:30 - 4:30 PM

HOW FAST AND HOW OFTEN? THE TEMPORAL PATTERN OF DRUG USE IS DECISIVE IN ADDICTION

Chairs: Anne-Noël Samaha and Terry Robinson

2:30  Patterns of heroin and cocaine taking in addicts
A. Badiani, University of Sussex, Falmer, England, United Kingdom

2:55  The temporal pattern of cocaine self-administration is critical for incentive-sensitization
T. Robinson, University of Michigan, Ann Arbor, MI

3:20  Intermittent and fast-rising cocaine spikes promote addiction
A. Samaha, Université de Montréal, Department of Pharmacology and Physiology, Outremont, QC, Canada

3:45  Temporal pattern of administration dictates dopaminergic alterations induced by cocaine
E. Calipari, Icahn School of Medicine at Mount Sinai, New York, NY

4:10  DISCUSSANT: Pharmacokinetics and addiction
T. Robinson, University of Michigan, Ann Arbor, MI
Tuesday, June 20, 2017

Workshop IX
Verdun
7:00 - 9:00 PM

WRITING WORKSHOP FOR EMERGING INVESTIGATORS: PROFITING FROM PEER REVIEW

Chairs: James Sorensen and Eric Strain

Responding to criticism: Perspective of a junior investigator
D. Ramo, UCSF, San Francisco, CA

After manuscript feedback arrives: How to respond to journal reviews
E. Strain, Johns Hopkins University School of Medicine, Baltimore, MD

Tools for publishing – An interactive review
A. Freda, Elsevier Health and Medical Sciences (Publisher of DAD), Amsterdam, Netherlands

Using reviews to improve science: Issues for underrepresented scientists
C. Masson, UCSF, San Francisco, CA

Workshop X
Westmount
7:00 - 9:00 PM

EPIDEMIOLOGY AND PUBLIC HEALTH RESEARCH METHODS

Chairs: James Anthony and Howard Chilcoat

Introduction to multiphase optimization strategy for behavioral intervention research
(Introductory session: 7:15-8:00; Continuation session: 8:05-8:50)
L. Collins, The Pennsylvania State University, University Park, PA

What Hill functions can teach us in analysis of complex survey sample data. (2 introductory sessions: 7:15-8:00; Then repeated: 8:05-8:50)
O. Vselvolozhskaya, College of Public Health, Lexington, KY

Epidemiology's mutoscope and apc regressions: Introduction and beyond (2 introductory sessions: 7:15-8:00; Then repeated: 8:05-8:50)
H. Cheng, Michigan State University, Lansing, MI
Tuesday, June 20, 2017

Workshop XI

ADVANCES IN SUBSTANCE USE DISORDER TREATMENTS FOR RACIAL/ETHNIC MINORITIES: WHERE DO WE GO FROM HERE?

Chairs: Kathy Burlew and LaTrice Montgomery

Racial and ethnic differences in treatment outcomes among adults with stimulant use disorders after a dosed exercise intervention
K. Sanchez, University of Texas, Arlington, TX

Racial and ethnic differences in history of sexual and physical abuse in relation to addiction severity
J. Korte, Medical University of South Carolina, Charleston, SC

Racial/ethnic subgroup differences in outcomes and acceptability of an Internet-delivered intervention for substance use disorders
L. Montgomery, University of Cincinnati College of Medicine, Cincinnati, OH

Internet-based substance use disorder treatment for AI/AN: A systematic process of adaptation
Traci Rieckmann¹, Aimee Campbell², ¹Oregon Health and Science University, Hillsboro, OR, ²Columbia University and NYSPI, New York, NY

Workshop XII

NIDA MEDICATIONS DEVELOPMENT WORKSHOP: ADDRESSING BAD BEHAVIOR IN CLINICAL TRIALS

Chairs: David McCann and Tanya Ramey

Deception by research participants
E. Devine, Boston University School of Medicine, Boston, MA

Combating "professional subjects" with research subject registries
K. Weingard, Verified Clinical Trials, Garden City, NY

Aiview and other new medication adherence monitoring technologies
A. Hanina, AiCure, New York, NY
NEW NIH GUIDELINES FOR REPRODUCIBILITY, RIGOR AND TRANSPARENCY: ETHICAL AND PRACTICAL CONUNDRUMS

Chair: Michael Kuhar

Ethical guidelines in reproducibility in research
M. Kuhar, Emory University, Atlanta, GA

Why NIH strengthened its guidelines on rigor and reproducibility
S. Weiss, NIDA, Bethesda, MD

Please be advised that no photographing of presentations or data is permitted. Badges must be worn at all times and are required for admission into all events and sessions.
Odd numbered posters manned first hour
Even-numbered, second hour

Set up time begins Tuesday, 1:00 PM
Must be removed by Wednesday, 12:00 noon

**IMAGING**

1. *Neural correlates of inhibitory control in abstinent vs. satiated smokers*
   Philip Spechler¹, Bader Chaarani¹, Alexandra Ivanciu¹, Stephen Higgins¹, Hugh Garavan¹, ¹University of Vermont, Burlington, VT

2. *Neural activation during inhibition to smoking cues associated with smoking abstinence*
   Jodi Gilman¹, Milena Radoman¹, Nour Azzouz¹, Nina Levar¹, Gladys Pachas¹, Maurizio Fava¹, Anne Eden Evins¹, ¹Massachusetts General Hospital-Psychiatry, Boston, MA

3. *A dynamic causal modeling study of the working memory system in marijuana users*
   Liangsuo Ma¹, Joel Steinberg², James Bjork², Lori Keyser-Marcus², Jasmin Vassileva³, Sergi Ferré³, F. Gerard Moeller¹, ¹Virginia Commonwealth University, Richmond, VA, ²Virginia Commonwealth University-Psychiatry, Richmond, VA, ³NIDA Intramural Research Program, Baltimore, MD

4. *An fMRI study to examine recognition memory for cocaine picture stimuli in cocaine smokers*
   Suchismita Ray¹, Marsha Bates¹, Margaret Haney², Aradhana Srinagesh¹, Ashley Aya¹, ¹Rutgers University, New Brunswick, NJ, ²Columbia University Medical Center, New York, NY

5. WITHDRAWN

6. *Evaluating interrelationships between trajectories of choice behavior and ICA-derived brain network activation by game trials ordered according to self-benefit relative to other-harm in adolescents with substance use disorder and controls*
   Susan Mikulich-Gilbertson¹, Manish Dalwani¹, Gary Grunwald², Gary Zerbe², Brandie Wagner², Joseph Sakai¹, ¹University of Colorado School of Medicine, Aurora, CO, ²University of Colorado School of Public Health, Aurora, CO

**SEX/GENDER DIFFERENCES**

7. *Sex differences and the role of estrous cyclicity in cocaine and remifentanil demand in rats*
   Ryan Lacy¹, Bridget Austin¹, Justin Strickland², ¹Franklin and Marshall College, Lancaster, PA, ²University of Kentucky, Lexington, KY

8. *Ovarian hormonal status influences 5-HT1B receptor agonist effects on cocaine self-administration in rats*
   Samantha Scott¹, Raul Garcia¹, Alyssa Bralich¹, Jennifer Hesterman¹, Austin Stone¹, Janet Neisewander¹, ¹Arizona State University, Tempe, AZ
Brain functional response to the presentation of cocaine-associated cues on rate of cerebral metabolism measured with FDG PET
Taylor Stowe¹, Paul Czoty¹, Mack Miller¹, Joseph Noto¹, Sue Nader¹, Michael Nader¹,

Sex differences in novelty- and cocaine-induced behaviors in Lewis and Fischer 344 rats
Odochi Ohia-Nwoko¹, Colin Haile¹, Therese Kosten¹, ¹University of Houston, Houston, TX

Sex and HIV serostatus effects on verbal memory for individuals with cocaine dependence in early vs. sustained remission
Eileen Martin¹, Jasmin Vassileva³, Leah Rubin³, Pauline Maki³, Michael Keutmann³, Raul Gonzalez⁴, ¹Rush University Medical Center, Chicago, IL, ²Virginia Commonwealth University-Psychiatry, Richmond, VA, ³University of Illinois, Chicago, IL, ⁴Florida International University, Miami, FL

Gender differences in cannabis abstinence among adults in treatment for cannabis use disorder
Dustin Lee¹, Nicolas Schlienz², Alan Budney³, Michael Smith², David Andrew Tompkins², Aidan Hampson¹, Ryan Vandrey⁵, ¹Johns Hopkins Medicine, Lexington, KY, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³Geisel School of Medicine at Dartmouth, Hanover, NH, ⁴NIDA, Bethesda, MD, ⁵Behavioral Pharmacology Research Unit, Baltimore, MD

Sex-dependent effects of cannabis on physiological response and subjective drug effects in young adults
Devika Govindarajah¹, Robert Mann¹, Bernard LeFoll², Gina Stoduto¹, Christine Wickens¹, Marilyn Huestis³, Bruna Brands⁴, ¹Centre for Addiction and Mental Health, Toronto, ON, ²University of Toronto, Toronto, ON, ³NIDA, Bethesda, MD, ⁴Health Canada, Toronto, ON

Gender moderates chronic nicotine effects on cognition in young adults
Megan Kangiser¹, Kyle Jennette¹, Alicia Thomas¹, Krista Lisdahl¹, ¹University of Wisconsin-Milwaukee, Milwaukee, WI

Gender differences in tobacco use disorder phenotypes among smokers in the largest metropolitan area of South America
Joao Mauricio Castaldelli-Maia¹, Silvia Martins², Erica Siu¹, Camila Silveira¹, Arthur Andrade¹, Laura Andrade¹, ¹University of Sao Paulo Medical School, Sao Paulo SP, Brazil, ²Columbia University, New York, NY

Gender differences in smoking and use of nicotine and tobacco products among cardiac patients
Irene Pericot-Valverde¹, Diann Gaalema², Rebecca Elliott¹, Philip Ades³, Stephen Higgins¹, ¹University of Vermont, Burlington, VT, ²University of Vermont UHC Campus, Burlington, VT, ³University of Vermont Medical Center, Burlington, VT

Sex differences in heroin use: United States, 2002-2014
David Barondess¹, Samantha J. Bauer¹, Hsueh-Han Yeh¹, James Anthony¹, ¹Michigan State University, Lansing, MI

A national study: Gender, drug dependence and recent drug use
Carol Boyd¹, James Cranford¹, Sean McCabe¹, ¹University of Michigan, Ann Arbor, MI
Social influence on recent illicit drug use among army reserve couples
Erin Anderson Goodell¹, D. Lynn Homish², Gregory Homish², ¹Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²State University of New York at Buffalo, Buffalo, NY

WITHDRAWN

Sex disparities in substance abuse research: Evaluating 23 years of structural neuroimaging studies
Dorothy Yamamoto¹, Kimberly E. Lind¹, Eric J. Gutierrez¹, Michael F. Regner¹, Sherry McKee², Jody Tanabe¹, ¹University of Colorado, Boulder, CO, ²Yale School of Medicine

MARIJUANA/CANNABINOIDS I

Effects of GPR55 activation on neural stem cell proliferation, differentiation, and immune responses to chronic inflammation
Jeremy Hill¹, Viviana Zuluaga-Ramirez¹, Malika Winfield¹, Sachin Gajghate¹, Yuri Persidsky¹, ¹Lewis Katz School of Medicine at Temple University, Philadelphia, PA

Pharmacological interrogation of hypothermia induced by vapor inhalation of THC in rats
Michael Taffe¹, Sophia A. Vandewater¹, Kevin Creehan¹, Jacques Nguyen¹, Mehrak Javadi-Paydar¹, ¹Scripps Research Institute, La Jolla, CA

A CB1 antagonist reverses analgesia induced by a combination of the cannabinoid WIN55212-2 plus morphine in the mouse formalin test
Xiaohong Chen¹, Martin Adler², A. Cowan¹, Ellen Geller³, J.J. Meissler¹, S. Inan¹, Scott Rawls², Ronald Tallarida⁴, M.N. Watson¹, Toby Eisenstein¹, ¹Center for Substance Abuse Research, Lewis Katz School of Medicine of Temple University, Philadelphia, PA, ²Lewis Katz School of Medicine at Temple University, Philadelphia, PA, ³Temple University School of Medicine, Philadelphia, PA, ⁴Temple University, Philadelphia, PA

Effect of JWH-018 on prepulse inhibition of startle response
B. Ginsburg, University of Texas Health Science Ctr at San Antonio, San Antonio, TX

Tolerance and cross-tolerance to the discriminative-stimulus effects of CB1 agonists
Jack Bergman¹, Nathaniel Gillis², Spyros Nikas³, Alexandros Makriyannis⁴, Carol Paronis⁵, ¹ADARC - McLean Hospital, Belmont, MA, ²McLean Hospital, Belmont, MA, ³McLean Hospital, Belmont, MA, ⁴CDD/Northeastern University, Boston, MA, ⁵McLean Hospital, Harvard Medical School, Belmont, MA

Cannabinoid-like effects of five synthetic compounds
Michael Gatch¹, Michael Forster¹, ¹UNT Health Science Center, Fort Worth, TX

Increases in locomotor activity in mice following cannabinoid antagonists and during spontaneous cannabinoid withdrawal
Carol Paronis¹, Lisa Wooldridge¹, Spyros Nikas², Kiran Vemuri², Alexandros Makriyannis³, Jack Bergman⁴, ¹McLean Hospital, Harvard Medical School, Belmont, MA, ²CDD/Northeastern University, Boston, MA, ³Northeastern University, Boston, MA, ⁴ADARC - McLean Hospital, Belmont, MA

Delta-9-tetrahydrocannabinol potentiates hyperlocomotion induced by nicotine in rats
Mehrak Javadi-Paydar¹, Jacques Nguyen¹, Sophia A. Vandewater¹, Maury Cole¹, Michael Taffe¹, ¹Scripps Research Institute, La Jolla, CA
A rodent model of nicotine and delta-9-tetrahydrocannabinol co-abuse
Julie Marusich\textsuperscript{1}, Tim Lefever\textsuperscript{1}, Jenny Wiley\textsuperscript{1}, \textsuperscript{1}RTI International, Research Triangle Park, NC

Effects of cannabis dose and method of inhalation on subjective, cognitive, and physiological effects measures
Nicolas Schlienz\textsuperscript{1}, Dustin Lee\textsuperscript{2}, Natalie Lembeck\textsuperscript{1}, Edward Cone\textsuperscript{1}, John Mitchell\textsuperscript{1}, Ron Flegel\textsuperscript{1}, George Bigelow\textsuperscript{1}, Ryan Vandrey\textsuperscript{3}, \textsuperscript{1}Johns Hopkins University School of Medicine, Baltimore, MD, \textsuperscript{2}Johns Hopkins Medicine, Lexington, KY, \textsuperscript{3}Duke University School of Medicine, Durham, NC, \textsuperscript{4}SAMHSA, Rockville, MD, \textsuperscript{5}Behavioral Pharmacology Research Unit, Baltimore, MD

Impaired contrast sensitivity at low spatial frequency in cannabis users with early onset
Laurence Lalanne\textsuperscript{1}, Vincent Laprevote\textsuperscript{2}, Anne Giersch\textsuperscript{3}, \textsuperscript{1}University Hospital of Strasbourg, Strasbourg, France, \textsuperscript{2}CHRU de Nancy, Paris, France, \textsuperscript{3}INSERM, Marseille, France

Eye-tracking-based measures of inhibitory control and attentional bias in marijuana SUD and control subjects
Jin Yoon\textsuperscript{1}, Ilana Haliwa\textsuperscript{1}, Jessica Vincent\textsuperscript{1}, Robert Suchting\textsuperscript{1}, Joy Schmitz\textsuperscript{1}, Scott Lane\textsuperscript{2}, \textsuperscript{1}University of Texas Health Science Center, Houston, TX, \textsuperscript{2}University of Texas Medical Branch, Galveston, TX

The effect of approach bias modification on cue-reactivity in individuals with cannabis use disorder
Brian Sherman\textsuperscript{1}, Nathaniel Baker\textsuperscript{1}, Aimee McRae-Clark\textsuperscript{1}, \textsuperscript{1}Medical University of South Carolina, Charleston, SC

Neural and behavioral correlates of attentional bias and cue reactivity among adults with cannabis use disorders
Lesia M. Ruglass\textsuperscript{1}, Alina Shevorykin\textsuperscript{2}, Naomi Dambreville\textsuperscript{1}, Ayman Baig\textsuperscript{3}, Robert Melara\textsuperscript{3}, \textsuperscript{1}CUNY Graduate School of Public Health and Health Policy, New York, NY, \textsuperscript{2}Pace University, Westchester County, NY, \textsuperscript{3}The City College of New York, New York City, NY

Evaluation of potentially abuse-related events in phase III clinical trials of cannabidiol (Epidiolex®) using the MADDERS® Prospective System
Ryan Lanier\textsuperscript{1}, Imrana Kazam\textsuperscript{1}, Harrison Elder\textsuperscript{1}, Roi Treister\textsuperscript{1}, Maitreyee Mohanty\textsuperscript{1}, Reni Kunkel\textsuperscript{2}, Tilden Etges\textsuperscript{2}, Nathaniel Katz\textsuperscript{1}, \textsuperscript{1}Analgesic Solutions, Natick, MA, \textsuperscript{2}GW Pharmaceuticals PLC, Cambridge, UK

Evaluation of potentially abuse-related events in phase III clinical trials of a delta-9 tetrahydrocannabinol and cannabidiol (Sativex®) oromucosal spray
Harrison Elder\textsuperscript{1}, Ryan Lanier\textsuperscript{1}, Imrana Kazam\textsuperscript{1}, Roi Treister\textsuperscript{1}, Maitreyee Mohanty\textsuperscript{1}, Matthew Hersch\textsuperscript{2}, Tilden Etges\textsuperscript{2}, Nathaniel Katz\textsuperscript{1}, \textsuperscript{1}Analgesic Solutions, Natick, MA, \textsuperscript{2}GW Pharmaceuticals PLC, Cambridge, UK

Acute and residual effects of cannabis on simulated driving performance of young adults
Bruna Brands\textsuperscript{1}, Robert Mann\textsuperscript{2}, Bernard Le Foll\textsuperscript{2}, Gina Stoduto\textsuperscript{2}, Christine Wickens\textsuperscript{2}, Marilyn Huestis\textsuperscript{3}, \textsuperscript{1}Health Canada, Toronto, ON, \textsuperscript{2}Centre for Addiction and Mental Health, Toronto, ON, \textsuperscript{3}NIDA, Bethesda, MD
39 Rejection sensitivity and anger during social exclusion in young adult marijuana users
Naomi Dambreville¹, Lesia M. Ruglass¹, Grinband Jack², Michael Costa¹, Eric A. Fertuck¹, ¹CUNY Graduate School of Public Health and Health Policy, New York, NY, ²Columbia University Medical Center, New York, NY

40 Patterns of cannabis use, related problems, and readiness to change among young adult college students
Matthew Enkema¹, Mary Larimer¹, Kevin Hallgren¹, Kristen Lindgren¹, Sarah Bowen², ¹University of Washington, Seattle, WA, ²Pacific University, Forest Grove, OR

41 Has college put students at higher risk for marijuana initiation in recent years?
Richard Miech¹, Megan Patrick², Patrick O'Malley², Lloyd Johnston², ¹University of Michigan, Institute for Social Research, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI

42 Urban, suburban and rural differences in patterns of alcohol, cigarette and marijuana initiation by age among US youth
Shivani Khan¹, Bin Yu¹, Sadaf A Milani², Linda Cottler¹, Catherine Woodstock Striley¹, ¹University of Florida, Gainesville, FL, ²University of Florida, Department of Epidemiology, Gainesville, FL

Deborah Hasin¹, Aaron Sarvet¹, Magdalena Cerda², Katherine Keyes³, Sandro Galea⁴, Melanie Wall⁵, ¹Columbia University, New York, NY, ²University of California, Davis, Davis, CA, ³University of California, Davis, Davis School of Public Health, Newark, NJ, ⁴Boston University School of Public Health, Boston, MA, ⁵Columbia University and NYSPI, New York, NY

44 Marijuana and tobacco cigarettes: Estimating their behavioral economic relationship using purchasing tasks
Erica Peters¹, Zachary Rosenberry¹, Gillian Schauer², Kevin O’Grady³, Patrick Johnson⁴, ¹Battelle Memorial Institute, Baltimore, MD, ²University of Washington, Seattle, WA, ³University of Maryland-Psychology, College Park, MD, ⁴California State University, Los Angeles, CA

45 Cannabis use disorders among cigarette smokers in the United States, 2002-2014: Implications for the future of tobacco control
Renee Goodwin¹, Lauren Pacek², Michael Zvolensky³, Melanie Wall⁴, Deborah Hasin⁵, ¹CUNY School of Medicine, New York, NY, ²Duke University School of Medicine, Durham, NC, ³University of Houston, Houston, TX, ⁴Columbia University and NYSPI, New York, NY, ⁵Columbia University, New York, NY

46 Simultaneous vs. sequential approaches to target tobacco use during treatment of cannabis use disorder
Alan Budney¹, Dustin Lee², Denise Walker³, Mary Brunette¹, John Hughes⁴, Samantha Auty¹, Jean-Francoise Etter⁵, Catherine Stanger⁶, ¹Geisel School of Medicine at Dartmouth, Hanover, NH, ²Johns Hopkins Medicine, Lexington, KY, ³University of Washington, Seattle, WA, ⁴University of Vermont, Burlington, VT, ⁵University of Geneva, Geneva, Switzerland, ⁶Dartmouth College, Hanover, NH
Is cannabis use associated with risk of relapse to cigarette smoking? Potential implications of cannabis use on trends in cigarette smoking in the US
Andrea Weinberger1, Jonathan Platt2, Jan Copeland3, Renee Goodwin4, 1Yeshiva

Marijuana use is associated with poorer smoking cessation treatment outcomes in young adults
Danielle Ramo1, Mark Rubinstein1, 1UCSF, San Francisco, CA

NICOTINE II
Simulating demand for cigarettes among economically disadvantaged mothers of young children: A low-risk method for studying vulnerable populations
Diana Keith1, Derek Reed2, Ryan Redner3, Allison Kurti1, Stephen Higgins1, 1University of Vermont, Burlington, VT, 2University of Kansas, Lawrence, KS, 3University of Kansas, Lawrence, KS

Evaluating reduced-nicotine standards on the addiction potential of cigarettes in vulnerable populations
Stephen Higgins1, Sarah Heil1, Stacey Sigmon1, Jennifer Tidey2, Diann Gaalema3, John Hughes4, Maxine Stitzer5, Hanna Durand6, Janice Bunn1, Jeff Priest1, Christopher Arger1, Mollie Patrick5, Cecilia Berge6, Danielle Davis1, Joanna Streck6, Derek Reed7, Joan Skelly1, Lauren Tursi1, 1University of Vermont, Burlington, VT, 2Brown University School of Medicine, Providence, RI, 3University of Vermont UHC Campus, Burlington, VT, 4Johns Hopkins Bayview Medical Center, Baltimore, MD, 5Brown University, South Burlington, VT, 6Vermont Center on Behavior and Health, Burlington, VT, 7University of Kansas, Lawrence, KS

Characteristics of homeless adults who successfully quit smoking
Carla Rash1, Darla Kendzor2, Aaron Waters3, Michael Businelle2, 1UConn Health, Farmington, CT, 2Oregon Health and Science University, Hillsboro, OR, 3Louisiana State University, Shreveport, LA

Heavy smoking among U.S. soldiers returning from combat
Alexa Lopez1, Robin Toblin2, Lyndon Riviere2, James Lee3, Amy Adler2, 1University of Vermont, Burlington, VT, 2Walter Reed Army Institute of Research, Sandy Spring, MD

High prevalence of menthol cigarette smoking among individuals in addiction treatment
Denise Williams1, Noah Gubner1, Barbara Tajima2, Joseph Guydish1, 1UCSF, San Francisco, CA, 2UCSF, San Francisco, CA

Treating tobacco dependence in addictions settings: Substance use co-morbidity and other predictors of cessation
Laurie Zawertailo1, Carolyn Peters1, Peter Selby1, 1Centre for Addiction and Mental Health, Toronto, ON, Canada

Use topography and dependence in loose and portioned smokeless tobacco users
Lynn Hull1, Chad Reissig1, Patricia Braschayko2, Jennifer Potts3, Meredith Thanner2, Wallace Pickworth3, 1FDA Center for Tobacco Products, Sandy Spring, MD, 2Battelle Public Health Center for Tobacco Research, Columbus, OH, 3Battelle Memorial Institute, Baltimore, MD
Emotional responses to smokeless tobacco warning labels: Are graphics more powerful than text?
Amanda Quisenberry¹, Abigail Shoben¹, Sarah Cooper¹, Amy Ferketich¹, Micah Berman¹, Ellen Peters¹, Mary Ellen Wewers¹, Elizabeth Klein¹, ¹Ohio State University, Columbus, OH

Socioeconomic status and adolescent e-cigarette use: The mediating role of e-cigarette advertisement exposure
Patricia Simon¹, Deepa Camenga¹, Krysten Bold¹, Grace Kong¹, Meghan Morean², Dana Cavallo¹, Suchitra Krishnan-Sarin¹, ¹Yale School of Medicine, New Haven, CT, ²Oberlin College, Oberlin, OH

Examining menthol and nicotine effects in youth using e-cigarettes
Suchitra Krishnan-Sarin¹, Grace Kong¹, Stephanie O'Malley¹, Barry Green², Eugenia Buta², ¹Yale School of Medicine, New Haven, CT, ²Yale University, New Haven, CT

E-cigarettes use in a country with high prevalence of tobacco smoking: A population-based study
Yi-Lung Chen¹, Shang-Chi Wu², Wen-Ing Tsay³, Yen-Tyeng Chen¹, Po-Chang Hsiao¹, Ya-Hui Yu¹, Te-Tien Ting¹, Chuan-Yu Chen², Yu-Kang Tu¹, Jiun-Hau Huang¹, Hao-Jan Yang⁴, Chung-Yi Li⁵, Carol Strong⁵, Cheng-Fang Yen⁶, Chia-Feng Yen⁷, Jui Hsu¹, Wei-Jen Chen¹, ¹National Taiwan University, Taipei City, Taiwan, ²National Taiwan University, Epidemiology and Preventive Medicine, Taipei City, Taiwan, ³Taiwan Food and Drug Administration, Taipei, Taiwan, ⁴Chung Shan Medical University, Taiwan, Taichung City, Taiwan, ⁵National Cheng Kung University, East District, Taiwan, ⁶Kaohsiung Medical University, Taiwan, Kaohsiung, Taiwan, ⁷Tzu Chi University, Taiwan, Hualien City, Taiwan

Use of and attitudes towards e-cigarettes and conventional cigarettes in a tobacco-using cardiac population
Diann Gaalema¹, Janice Bunn², Philip Ades³, Stephen Higgins², ¹University of Vermont UHC Campus, Burlington, VT, ²University of Vermont, Burlington, VT, ³University of Vermont Medical Center, Burlington, VT

Perceived effects of electronic cigarette ingredients
Arit Harvanko¹, Andrea McCubbin², Kristin Ashford³, Thomas Kelly³, ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Nursing, Lexington, KY, ³University of Kentucky College of Medicine, Lexington, KY

E-cigarette expectancy measure development
Paul Harrell¹, Gwen Quinn², Laurel Brockenberry¹, Thomas Brandon², ¹Eastern Virginia Medical School, Norfolk, VA, ²Moffitt Cancer Center, Tampa, FL

Daily vs. weekly electronic cigarette users in drug treatment: A comparison of tobacco use, device type, and flavor characteristics
Noah Gubner¹, Anna Pagano², Barbara Tajima³, Joseph Guydish¹, ¹UCSF, San Francisco, CA, ²Prevention Research Center, Oakland, CA, ³UCSF, San Francisco, CA

Does early onset of e-cigarette use predict cigarette smoking and other drug use among adolescents in the United States?
Sean McCabe¹, Brady West¹, Vita McCabe², ¹University of Michigan, Ann Arbor, MI, ²St. Joseph Mercy Hospital, Ann Arbor, MI
ADOLESCENT

65  Reward-related frontostriatal activity and smoking behavior among adolescents in treatment for smoking cessation
Kathleen Garrison¹, Sarah Yip², Iris Balodis³, Kathleen Carroll¹, Marc Potenza¹, Suchitra Krishnan-Sarin¹, ¹Yale School of Medicine, New Haven, CT, ²Yale University, New Haven, CT, ³Yale School of Medicine, New Haven, CT

66  Brain pathways from parenting to adolescent substance use: Gender differences
Tara Chaplin¹, Jennifer Poon², James Thompson², Rajita Sinha³, Emily Ansell¹, George Mason University, Vienna, VA, George Mason University, Fairfax, VA, ³Yale School of Medicine, New Haven, CT, ⁴Syracuse University, Syracuse, NY

67  Parental substance use, adolescent physical activity, and cannabis use disorder in young adulthood
Maureen Reynolds¹, Ralph Tarter¹, Levent Kirisci¹, Michael Vanyukov¹, University of Pittsburgh, Pittsburgh, PA

68  Material-specific sex differences in relationships between cannabis use and episodic memory among adolescents
Jacqueline Duperrouzel¹, Ileana Pacheco-Colon¹, Catalina Quintero-Lopez¹, Samuel Hawes¹, Raul Gonzalez¹, ¹Florida International University, Miami, FL

69  ADHD symptoms and marijuana exposure predict sustained attention accuracy
Alexander Wallace¹, Natasha E Wright¹, Erika R. Gilbert¹, Krista Lisdahl¹, University of Wisconsin-Milwaukee, Milwaukee, WI

70  Mutoscope estimates for adolescent drug treatment in the United States, 2002-2014
Chris Thompson¹, Hui Cheng¹, James Anthony¹, Michigan State University, Lansing, MI

71  Screening youth in the Ukraine for cigarette and marijuana use: Prevalence and correlates
Tetiana Nickelsen¹, Oleksii Krugliachenko¹, Robert Zucker¹, Victor Burlaka², Maureen Walton¹, University of Michigan, Ann Arbor, MI, ²University of Mississippi, Mississippi, MS, ³University of Michigan-Addiction Research Center, Ann Arbor, MI

72  Associations between adolescent energy drink use and bullying victimization and other problem behaviors
Kathryn Polak¹, Dace Svikis¹, Pamela Dillon¹, David Pomm¹, Enkelejda Ngjelina¹, J. Randy Koch¹, Willis Miller¹, Virginia Commonwealth University, Richmond, VA

73  Teen substance use initiation: The role of self-efficacy and knowledge
Genevieve Yang¹, Tassos Kyriakides², David Fiellin¹, Lynn Fiellin¹, Yale School of Medicine, New Haven, CT, ²Yale School of Public Health, New Haven, CT

74  Past 15-year trends in lifetime cocaine use among US high school students
Kristin Schneider¹, Noa Krawczyk¹, Ziming Xuan², Renee Johnson¹, Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, ²Boston University School of Public Health, Boston, MA

75  Substance use and academic outcomes among high school seniors: Examining the influence of academic engagement
Brittany Bugbee¹, Ken Beck², Craig Fryer², Amelia Arria¹, University of Maryland School of Public Health, College Park, MD, ²University of Maryland, College Park, MD
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>Risk estimates of cannabis use onset among US adolescents with conduct problems</td>
<td>C. Lopez-Quintero, Florida International University, Miami, FL</td>
</tr>
<tr>
<td>77</td>
<td>What brain regions are engaged by decisions with varying levels of other-harm vs. self-benefit typically developing adolescents and those with substance and conduct problems?</td>
<td>Joseph Sakai¹, Manish Dalwani¹, Shannon McWilliams¹, Kristen Raymond², Susan Mikulich-Gilbertson¹, University of Colorado School of Medicine, Aurora, CO; University of Colorado, Denver, CO</td>
</tr>
<tr>
<td>78</td>
<td>Default mode network activity: Association with externalizing behavior problems with and without limited prosocial emotion</td>
<td>Brian Walsh¹, Joseph Sakai², Manish Dalwani², University of Colorado, Aurora</td>
</tr>
<tr>
<td>79</td>
<td>Diminished alternative reinforcement as a mechanism linking adolescent conduct problems and substance use</td>
<td>Rubin Khoddam¹, Junhan Cho¹, Adam Leventhal¹, University of Southern California, Los Angeles, CA</td>
</tr>
<tr>
<td>80</td>
<td>Longitudinal associations between anxiety sensitivity and substance use in adolescents: Mediation by depressive affect</td>
<td>Casey Guillot¹, Raina Pang², Steve Sussman², Adam Leventhal², University of North Texas, Denton, TX; University of Southern California, Los Angeles, CA</td>
</tr>
<tr>
<td>81</td>
<td>Developing decision rules for adolescent substance use treatment settings: Perspectives from four online stakeholder engagement panels</td>
<td>Beth Ann Griffin¹, Sean Grant¹, Sarah Hunter¹, Pedersen Eric¹, RAND Corporation, Arlington, VA</td>
</tr>
<tr>
<td>82</td>
<td>Reliability and validity of the GAIN-SS to detect problem drinking and problem gambling with Spanish adolescents</td>
<td>Sergio Fernandez-Artamendi¹, Víctor Martínez-Loredo², Irene Pericot-Valverde³, Jose Ramón Fernández-Hermida⁴, Universidad Internacional de Andalucía-Psychology, Andalucia, Spain; University of Oviedo, Addictive Behaviors Group, Oviedo, Spain; University of Vermont, Burlington, VT; University of Oviedo, Oviedo, Spain</td>
</tr>
<tr>
<td>83</td>
<td>A survey of potential internet gaming disorder extended to screen use in a community sample</td>
<td>Jean-Marc Alexandre¹, Christophe Rassis², Fuschia Serre¹, Melina Fatseas¹, Marc Auriacombe¹, Université de Bordeaux, Bordeaux, France; Centre Hospitalier Charles Perrens, Bordeaux, France; Centre Hospitalier Charles Perrens, Bordeaux, France</td>
</tr>
<tr>
<td><strong>OVERDOSE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>Comparison of overdose risk factors between intravenous and intranasal non-treatment-seeking heroin users</td>
<td>Mudassir Mumtaz¹, Jermaine Jones², Sandra Comer³, Sophie Davis School of Biomedical Education, Rockaway Beach, NY; Columbia University College of Physicians and Surgeons, New York, NY; Columbia University and NYSPI, New York, NY</td>
</tr>
<tr>
<td>85</td>
<td>Violence and overdose among female users of harm reduction services</td>
<td>Janna Ataiants¹, Stephen Lankenau², Drexel University, Philadelphia, PA; Drexel University Dornsife School of Public Health, Philadelphia, PA</td>
</tr>
</tbody>
</table>
What actually causes a stimulant overdose death? Comparison of clinical causes of death among opioid, cocaine, and methamphetamine overdose deaths
Phillip Coffin1, Dharsan Chandrakumar2, Caitlin Turner1, Glenn-Milo Santos1, San Francisco Department of Public Health, San Francisco, CA, Brown University School of Medicine, Providence, RI, UCSF, San Francisco, CA

Naloxone training for opioid users: Adherence to protocol and survival rates
Jeanne Manubay1, Benjamin Foote1, Jermaine Jones2, Aimee Campbell1, Sandra Comer1, Columbia University and NYSPI, New York, NY, Columbia University College of Physicians and Surgeons, New York, NY

UMass opioid overdose project: Review of clinical characteristics and healthcare services received in the year prior to death
Gerardo Gonzalez1, Christian Rose, BS2, Abtin Shahanagi, BS2, Mauricio Romero-Gonzalez1, Jorge Yarzebski2, Michael Andre3, Gregory J. DiGirolamo1, Alan Brown2, University of Massachusetts Medical School, Addiction Psychiatry, Worcester, MA, University of Massachusetts Medical School, Worcester, MA, College of the Holy Cross, Worcester, MA

Mortality after nonfatal opioid overdose: Medication for opioid use disorder is associated with lower risk
Marc Larochelle1, Dana Bernson2, Thomas Land2, Thomas Stopka3, Alexander Walley1, Boston University School of Medicine, Boston, MA, Massachusetts Department of Public Health, Boston, MA, Tufts University School of Medicine, Boston, MA

Characteristics of nonfatal opioid-related overdoses in Massachusetts among emerging adults
Sarah Bagley1, Dana Bernson2, Marc Larochelle1, Scott Hadland1, Thomas Land2, Alexander Walley1, Boston University School of Medicine, Boston, MA, Massachusetts Department of Public Health, Boston, MA

Emergency department patients’ knowledge gaps and perceived needs after non-fatal opioid overdose
Kathryn Hawk1, Grau Lauretta2, Marek Chawarski3, David Fiellin4, Patrick O’Connor5, Gail D’Onofrio4, Yale University, New Haven, CT, Yale School of Public Health, New Haven, CT, Yale University-Psychiatry, New Haven, CT, Yale School of Medicine, New Haven, CT, Yale University-Internal Medicine, New Haven, CT

Understanding opioid overdoses in New Hampshire: A national drug early warning system rapid epidemiological study
Andrea Meier1, Sarah Moore2, Elizabeth Saunders3, Bethany McLeman2, Samantha Auty2, Stephen Metcalf2, Lisa Marsch2, Dartmouth College, Hanover, NH, Geisel School of Medicine at Dartmouth, Hanover, NH, The Dartmouth Institute, Lebanon, NH

Heroin overdoses reach epidemic proportion in Thailand
C. Areesantichai, Chulalongkorn University, Bangkok, Bangkok, Thailand

POLICY

State-level alcohol policies and trajectories of heavy episodic drinking from 10th grade into young adulthood
Brian Fairman1, Bruce Simons-Morton1, Denise Haynie1, Liu Danping1, Ralph Hingson2, Stephen Gilman2, National Institute of Child Health and Human Development, Bethesda, MD, NIAAA, Bethesda, MD
Assessing pathways between the legal environment, substance use and sexual risk among migrant and non-migrant workers in Kazakhstan
Phillip Marotta¹, Nabila El-Bassel¹, Elwin Wu¹, Daniel Feaster², ¹Columbia University, New York, NY, ²University of Miami Miller School of Medicine, Miami, FL

Staff and clients smoking together in drug abuse treatment: A target policy change
Joseph Guydish¹, Deborah Yip¹, Barbara Tajima², Thao Le¹, Denise Williams¹, ¹UCSF, San Francisco, CA, ²UCSF, San Francisco, CA

Impacts of minimum age of tobacco sales laws on youth smoking in Canada, 2000-2014
Russell Callaghan¹, Jodi Gatley², Marcos Sanches³, Claire Benny⁴, ¹Northern Medical Program, Prince George, BC, Canada, ²University of Northern British Columbia, Prince George, BC, ³Centre for Addiction and Mental Health, Toronto, ON

Aversiveness enhances memory of cigarette warning messages
An-Li Wang¹, Zhenhao Shi¹, Victoria Fairchild¹, Catherine Aronowitz¹, Daniel Langleben¹, ¹University of Pennsylvania, Philadelphia, PA

Impact of medical marijuana laws on state-level marijuana use by age and gender, 2004-2013
Christine Mauro¹, Paul Newswanger¹, Julian Santaella-Tenorio¹, Pia Mauro¹, Hannah Carliner², Silvia Martins¹, ¹Columbia University, New York, NY, ²Mailman School of Public Health, New York, NY

Medical marijuana laws and state substance use disorder treatment by age, 2004-2013
Pia Mauro¹, Julian Santaella-Tenorio¹, Christine Mauro¹, Niki Nourmohammadi¹, Arthur Robin Williams², Silvia Martins¹, ¹Columbia University, New York, NY, ²Columbia University Division on Substance Use Disorders, New York, NY

WITHDRAWN

Self-medication of mood and anxiety disorders with marijuana: Higher in states with medical marijuana laws
Aaron Sarvet¹, Melanie Wall², Katherine Keyes³, Mark Olfson², Magdalena Cerda⁴, Deborah Hasin¹, ¹Columbia University, New York, NY, ²Columbia University and NYSPI, New York, NY, ³Columbia University Mailman School of Public Health, Newark, NJ, ⁴University of California, Davis, Davis, CA

Home cultivation and dispensary provisions of cannabis laws and use of cannabis edibles
Jacob Borodovsky¹, Alan Budney¹, ¹Geisel School of Medicine at Dartmouth, Hanover, NH

Appalachian women’s use of substance abuse treatment: Examining the behavioral model for vulnerable populations
Grant Victor¹, Athena Kheibari¹, Michele Staton², Carrie Oser¹, ¹University of Kentucky, Lexington, KY, ²University of Kentucky College of Medicine, Lexington, KY

Changes in demographic characteristics and drug use among non-medical prescription opioid users, 2005-2014
Kathi Harp¹, D. Keith Branham¹, ¹University of Kentucky, Lexington, KY
The influence of prior authorization policies on opioid medication abuse and overdose among members of a large Medicaid program
Gerald Cochran¹, Adam Gordon², Walid Gellad³, Chung-Chou H Chang¹, Jenny Lo-Ciganic³, Carrol Lobo¹, Evan Cole¹, Winfred Frazier¹, Ping Zheng¹, David Kelley⁴, Julie Donohue¹, ¹University of Pittsburgh, Pittsburgh, PA, ²Center for Health Equity Research and Promotion, Pittsburgh, PA, ³University of Arkansas for Medical Sciences, Little Rock, AR, ⁴Pennsylvania Department of Human Services, Harrisburg, PA

Implementation of methadone therapy for opioid use disorder in Russia – a modeled cost-effectiveness analysis
Sean Murphy¹, Donald Shepard², Tyler Morrill², Mayada Saadoun², Bulat Idrisov³, ¹Weill Cornell Medicine, New York, NY, ²Brandeis University, Waltham, MA, ³Boston University School of Medicine, Boston, MA

High-value policy interventions in California’s publicly funded treatment of opioid use disorder: A cost-effectiveness analysis
Emanuel Krebs¹, Benjamin Enns¹, Jeong Min¹, Richard Rawson², Yih-Ing Hser², Bohdan Nosyk¹, ¹BC Centre for Excellence in HIV/AIDS, Vancouver, BC, ²UCLA-ISAP, Los Angeles, CA

Paying clinicians for program-level performance – early results from an RCT
Sharon Reif¹, Maureen Stewart², Margot Davis², Torres Maria², AnMarie Nguyen², Dominic Hodgkin¹, Constance Horgan¹, ¹Brandeis University, Heller School for Social Policy and Management, Waltham, MA, ²Brandeis University, Waltham, MA

THEORETICAL COMMENTARY

Drug abuse research and scientific integrity in the 21st century
B. Kleykamp, Pinney Associates, Bethesda, MD

A virtual self-administration laboratory
Scott Shilling¹, Hanna Wetzel¹, Andrew Norman², ¹University of Cincinnati, Cincinnati, OH, ²University of Cincinnati College of Medicine, Cincinnati, OH

A streamlined approach to the acquisition and analysis of data from drug self-administration sessions
Hanna Wetzel¹, Andrew Norman², ¹University of Cincinnati, Cincinnati, OH, ²University of Cincinnati College of Medicine, Cincinnati, OH

Standards for assessing the activity of anabolic steroids
James Tolliver¹, E. Gregory Hawkins¹, Michael Klein², ¹U.S. Food and Drug Administration, Silver Spring, MD, ²Food and Drug Administration, Chevy Chase, MD

Triaging which new psychoactive substances should be prioritized for further study
E. Gregory Hawkins¹, Silvia Calderon¹, Michael Klein², ¹U.S. Food and Drug Administration, Silver Spring, MD, ²Food and Drug Administration, Chevy Chase, MD

A comparison between a second generation AD product and an approved AD product
L. Chen, U.S. Food and Drug Administration, Silver Spring, MD
Pharmacovigilance in clinical trials of substance use disorder treatments with marketed drugs
Radhika Kondapaka¹, Ashraf El Fiky¹, Dikla Blumberg¹, Robert Lindblad¹, ¹The Emmes Corporation, Rockville, MD

Illness narratives of female substance users from an Indian urban slum: A clinical and social perspective on presentation and rehabilitation
Shalini Singh¹, Sonali Jhanjee¹, Nimmy Chandran¹, Deepak Yadav¹, Rakesh Lal¹, ¹All India Institute of Medical Sciences, New Delhi, India

Abuse liability assessment of new tobacco products: Application of human abuse potential study methodology and special considerations
Megan Shram¹, Naama Levy-Cooperman¹, ¹Altreos Research Partners Inc., Toronto, ON, Canada

Applicability of the socioecological model on e-cigarette trends
Anastasiya Ferrell¹, Linda Haddad¹, ¹University of Florida College of Nursing, Gainesville, FL

Please be advised that no photographing of presentations or data is permitted. Badges must be worn at all times and are required for admission into all events and sessions.
STRESS IS STRESS (EVEN IN FRENCH)

Chairs: Shane Perrine and Eric Woodcock

10:00  
Effects of single prolonged stress on ethanol drinking and striatal function and 
neurochemistry in animals  
Shane Perrine¹, Alana Conti¹, ¹Wayne State University, Detroit, MI

10:15  
Predator-odor stress enhances alcohol self-administration in female rats  
Colin Haile¹, Steven Nieto¹, Therese Kosten¹, ¹University of Houston, Houston, TX

10:30  
Effects of early life stress on vulnerability to cocaine self-administration in male and 
female rhesus macaques  
Alison Wakeford¹, Sara Bramlett², Mar Sanchez¹, Leonard Howell², ¹Yerkes National 
Primate Research Center, Atlanta, GA, ²Emory University, Atlanta, GA

10:45  
Psychosocial stress-induced cocaine seeking in rats is associated with distinct coping 
strategies exhibited during prior social defeat stress  
Daniel Manvich¹, Saumya Karne¹, Taylor Stowe¹, David Weinshenker¹, ¹Emory 
University, Atlanta, GA

11:00  
Sources of stress and their correlates among adults who use drugs  
Kayla Tormohlen¹, Karin Tobin¹, Carl Latkin¹, ¹Johns Hopkins Bloomberg School of 
Public Health, Baltimore, MD

11:15  
Effects of pharmacological stress-induction among non-treatment-seeking cigarette 
smokers  
Eric Woodcock¹, Jeffrey Stanley¹, Vaibhav Diwadkar¹, Dalal Khatib¹, Mark 
Greenwald¹, ¹Wayne State University, Detroit, MI

11:30  
Reregulation of cortisol levels in opioid-dependent patients during long-term 
residential treatment  
Dean Stankoski¹, Andrew Huhn², E. Bixler³, Roger Meyer³, E. Deneke⁵, S. 
Bunce³, ¹Penn State University College of Medicine, Hershey, PA, ²Johns Hopkins 
University School of Medicine, Baltimore, MD, ³Penn State College of Medicine, 
Hershey, PA, ⁴Penn State College of Medicine, Psychiatry, Washington, DC, ⁵Caron 
Treatment Center, Wernersville, PA

11:45  
Intranasal oxytocin increases stress reactivity in recreational cannabis-using women  
Stephanie Reed¹, Margaret Haney², Jeanne Manubay¹, Melissa Mahoney¹, Bianca 
Camagna¹, Suzette Evans³, ¹Columbia University, New York, NY, ²Columbia 
University Medical Center, New York, NY, ³Columbia University and NYSPI, New 
York, NY
Wednesday, June 21, 2017

Oral Communications 17

Mont-Royal

10:00 - 12:00 PM

#TECHNOLOGIE

Chairs: Dace Svikis and Frances Kay-Lambkin

10:00  
Contingency management technology for routine use in treatment and pilot risk prediction findings  
Eric Gastfriend1, David Gastfriend2, Paul Earley3, 1DynamiCare Health, Boston, MA, 2Treatment Research Institute, Philadelphia, PA, 3Principal, Earley Consultancy, LLC

10:15  
A comparison of computer and therapist-delivered SBIRT for alcohol/drugs in an urban primary care setting  
Dace Svikis1, Steven Ondersma2, Pamela Dillon1, Michael Weaver3, 1Virginia Commonwealth University, Richmond, VA, 2Wayne State University-Psychiatry and Behavioral Neurosciences, Detroit, MI, 3University of Texas Health Science Center, Houston, TX

10:30  
Persuasive antismoking interventions via Facebook, email-listserv, and MTURK  
Sunny Jung Kim1, Jesse Dallery2, Mary Brunette1, Lisa Marsch1, Jeff T. Hancock3, John A. Naslund4, 1Geisel School of Medicine at Dartmouth, Hanover, NH, 2University of Florida, Gainesville, FL, 3Stanford University, Stanford, CA, 4Dartmouth College, Hanover, NH

10:45  
Content analysis: Tobacco status project Facebook smoking cessation RCT  
Karma McKelvey1, Danielle Ramo1, 1UCSF, San Francisco, CA

11:00  
Using artificial intelligence to predict substance use risk with social media data  
Benjamin Crosier1, Timothy DeLise1, Andrej Ficnar2, Bruno Korbar1, Cara Van Uden1, Saeed Hassanpour1, 1Dartmouth College, Hanover, NH, 2University of Oxford, Oxford, UK

11:15  
A randomised controlled trial of online and social networking interventions in youth with alcohol use disorders and comorbid depression (the iTreAD Study)  
Frances Kay-Lambkin1, Sally Hunt2, Amanda Baker1, Maree Teesson3, Kathleen Brady3, Mark Deady2, Jenny Geddes1, 1University of Newcastle, New Castle, New South Wales, 2University of New South Wales, Sydney, New South Wales, 3Medical University of South Carolina, Charleston, SC

11:30  
The development of game-based incentives to increase utilization of an automated, computer-based treatment for methadone-maintained patients  
Frank Buono1, Daniel Lloyd1, Ryan Sullivan2, Destiny Printz1, Natalia Zenoni2, Brent Moore1, 1Yale School of Medicine, New Haven, CT, 2APT Foundation, Inc, New Haven, CT

11:45  
Mobile Intervention Kit for PWID outreach  
Ian Aronson1, Alexander Bennett2, Lisa Marsch1, Theodore Bania4, 1Digital Health Empowerment / NDRI, Brooklyn, NY, 2National Development and Research Institute, Inc., New York, NY, 3Geisel School of Medicine at Dartmouth, Hanover, NH, 4Mount Sinai School of Medicine, New York, NY
Oral Communications 18

MICE, RATS AND MONKEYS, OH MU

Chairs: Francesco Leri and Matthew Banks

10:00  
**ELK1 is a key regulator of synaptic plasticity and heroin addiction**  
Noël Warren¹, Stephanie Sillivan¹, Yasmin Hurd², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Mount Sinai School of Medicine, New York, NY

10:15  
**Inhibition of gap junctions impair the development of opioid tolerance**  
Maciej Gonek¹, William Dewey¹, ¹Virginia Commonwealth University, Richmond, VA

10:30  
**Effects of steady-state methadone exposure on hedonic reactivity and related gene expression in laboratory rats**  
Francesco Leri¹, Stephen Daniels¹, Mick Pratt¹, ¹University of Guelph, Guelph, ON

10:45  
**Antinociceptive interactions between mu-opioid receptor agonists and NMDA antagonists in rhesus monkeys**  
Jeremy Cornelissen¹, Floyd Steele¹, Katherine Nicholson¹, Kenner Rice², Matthew Banks³, ¹Medical College of Virginia, Richmond, Virginia, ²NIH, NIDA, Rockville, MD, ³Virginia Commonwealth University, Richmond, VA

11:00  
**Regulation of dopaminergic and serotonergic neurons in response to co-administration of nalbuphine in morphine-dependent rats**  
Rahul Raghav¹, Raka Jain¹, T S ROY¹, Anju Dhawan¹, Punit Kumar¹, ¹All India Institute of Medical Sciences, New Delhi, India

11:15  
**Role of mu opioid receptors in mediating the effects of amphetamine on cocaine-vs.-food choice in rhesus monkeys**  
Megan Moerke¹, Matthew Banks¹, S. Stevens Negus¹, ¹Virginia Commonwealth University, Richmond, VA

11:30  
**Heroin vaccine abrogates nociceptive and locomotive effects of heroin in rodents and induces cross-reactive antibodies to other abused prescription opioids**  
Gary Matyas¹, Rashmi Jalah², Joshua F G Antoline³, Oscar Torres², Arthur Jacobson¹, Zoltan Beck², Carl R Alving¹, Kenner Rice⁵, ¹Walter Reed Army Institute of Research, Sandy Spring, MD, ²Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, MD, ³NIDA, Bethesda, MD, ⁴NIH, Bethesda, MD, ⁵NIH, NIDA, Rockville, MD

11:45  
**Effects of a heroin vaccine in assays of schedule-controlled responding and drug discrimination in rhesus monkeys**  
Kathryn Schwienteck¹, Matthew Banks², Kim Janda³, Paul Bremer³, ¹Virginia Commonwealth University, Pharmacology and Toxicology, Richmond, VA, ²Virginia Commonwealth University, Richmond, VA, ³Scripps Research Institute, La Jolla, CA
Symposium XI

CLOUDY, WITH A CHANCE OF INTOXICATION:
E-VAPE MODELS OF DRUG EXPOSURE IN
LABORATORY ANIMALS

Chairs: Michael Taffe and Julie Marusich

10:00  Pharmacological effects of synthetic cannabinoid vapor
T. Lefever, RTI International, Research Triangle Park, NC

10:25  Towards a translationally relevant model of developmental cannabis exposure:
Implications for stress coping and executive function
R. McLaughlin, Washington State University, Pullman, WA

10:50  A novel e-vape system produces compulsive-like opioid intake in rats
L. Vendruscolo, NIDA, Bethesda, MD

11:15  Reinforcing effects of vapor inhalation of psychostimulants in rats
J. Nguyen, Scripps Research Institute, La Jolla, CA

11:40  DISCUSSANT: Leveraging alternative methods of cannabis
administration research to inform science, practice, and policy
M. Taffe, Scripps Research Institute, La Jolla, CA

Animals in Research Forum

ADVANCING OUR KNOWLEDGE OF ADDICTION AND
RELATED PSYCHIATRIC DISORDERS WITH
NONHUMAN PRIMATE RESEARCH

Chairs: Marilyn Carroll and Leonard Howell

Introduction: How nonhuman primate research is essential for advancing knowledge on
addiction and related psychiatric disorders
L. Howell, Emory University, Atlanta, GA

The value of primate research to gain knowledge complex cognitive behavior and
addiction in humans
J. Rowlett, University of Mississippi Medical Center, Jackson, MS

Comparative nonhuman primate genomics: Implications for animal models
E. Vallender, University of Mississippi Medical Center, Jackson, MS

Studying early life stress in primates: Parallels for human models of addiction and
psychiatric illness
M. Sanchez, Yerkes National Primate Research Center, Atlanta, GA
SPEED BUMPS: PUTTING THE BRAKES ON AMPHETAMINES

Chairs: T. Celeste Napier and Steven M. Graves

2:30 Effects of amphetamine maintenance on abuse-related behavioral effects of MDPV and methamphetamine in rats
Amy Johnson1, Matthew Banks1, S. Stevens Negus1, 1Virginia Commonwealth University, Richmond, VA

2:45 In utero exposure to moderate doses of methamphetamine alters sensitivity to the same drug in adults
Daniela Rüedi-Bettschen1, Maggie Neal1, Donna Platt2, 1University of Mississippi Medical Center, Jackson, MS, 2Division of Neurobiology and Behavior Research, Jackson, MS

3:00 Investigating the role of protein kinase C-beta inhibitors as potential therapeutics for amphetamine abuse
Rachel Altshuler1, Colleen Carpenter1, Margaret Gnegy1, Emily Jutkiewicz1, 1University of Michigan, Ann Arbor, MI

3:15 A novel interference peptide disrupts reconsolidation of methamphetamine-associated memory
Xiaojie Zhang1, Cuizhu Dong2, Mengqi Liu1, Lidong Liu3, Yu Tian Wang3, Wei Hao1, 1Central South University, Changsha, China, 2Central South University, Psychiatry, Changsha, China, 3University of British Columbia, Brain Research Centre, Vancouver, BC

3:30 Methamphetamine increases mitochondrial oxidant stress in substantia nigra pars compacta dopamine neurons: Implications for Parkinson’s disease
Steven M. Graves1, Zhong Xie1, Enrico Zampese1, Kristen Stout1, Rex Tai1, Sarah Schwarzschild1, Lena Burbulla1, Dimitri Krainc1, Paul Schumacker1, D. James Surmeier1, 1Northwestern University Feinberg School of Medicine, Chicago, IL

3:45 Brain and behavior parkinsonism-like pathology in rats with a history of self-administered methamphetamine: Exacerbation by rotenone
Isadora D. Calma1, Amanda Persons1, Matt Kase1, T. Celeste Napier1, 1Rush University Medical Center, Chicago, IL

4:00 Abuse-deterrent pseudoephedrine to hinder one-pot conversion to methamphetamine
Carmen Stomberg1, Klaus Wening1, Sebastian Schwier1, Brandon Presley2, 1The Grünenthal Group, Aachen, Germany, 2NMS Labs, Willow Grove, PA

4:15 Brain activation during methamphetamine-paired cues in humans
Kathryne Van Hedger1, Sarah Keedy1, Leah Mayo2, Markus Heilig2, Harriet de Wit1, 1University of Chicago, Chicago, IL, 2Linköping University, Linköping, Sweden
WHAT'S HAUTE NOW: EMERGING DRUG USE TRENDS

Chairs: Steven Kurtz and Joseph Palamar

2:30 “Not for human consumption”: An investigation into motives, consequences, and personality factors associated with bath salt use
Danielle Beyer¹, Tess Kilwein², Alison Looby², ¹University of North Dakota, Grand Forks, ND, ²University of Wyoming, Laramie, WY

2:45 Systematic surveillance of illicitly manufactured fentanyl cases initiated by law enforcement
Steven Kurtz¹, Mance Buttram¹, ¹Nova Southeastern University, Miami, FL

3:00 Undetected illicit fentanyl use among patients receiving opioid agonist treatment
Taylor Ochalek¹, Stacey Sigmon¹, Maria Parker¹, Stephen Higgins¹, ¹University of Vermont, Burlington, VT

3:15 Exploring the new phenomena of home-made extraction and injection of ephedra plant product in Georgia
David Otiashvili¹, Irma Kirtadze¹, Dessa Bergen-Cico², ¹Addiction Research Center, Tbilisi, GA, ²Syracuse University, Department of Public Health, Syracuse, NY

3:30 User characteristics and effect profiles of butane hash oil: An extremely high-potency cannabis concentrate
Gary Chan¹, Wayne Hall³, Tom Freeman³, Jason Ferris³, Adrian Kelly¹, Adam Winstock⁴, Jan Copeland⁵, ¹Centre for Youth Substance Abuse Research, Herston, Queensland, ²University of Queensland, Brisbane, Austria, ³University College London, London, UK, ⁴Global Drug Survey Ltd., London, England, ⁵University of South Wales, Sydney, Australia

3:45 Nonmedical benzodiazepine use among young adult opioid users: A prescription for overdose?
Pedro Mateu-Gelabert¹, Honoria Guarino¹, Lauren Jessell², Elizabeth Goodbody¹, Dongah Kim³, K. Gile⁴, ¹National Development and Research Institute, Inc., New York, NY, ²New York University, New York, NY, ³University of Massachusetts, Amherst, MA, ⁴UMassAmherst, Amherst, MA

4:00 Trends in ecstasy use among nightclub attendees in the United States and United Kingdom, 2013-2015
Joseph Palamar¹, Larissa Maier², Monica Barratt³, Jason Ferris⁴, Katherine Keyes⁵, Adam Winstock⁶, ¹New York University School of Medicine, New York, NY, ²University of Zurich, Zurich, Switzerland, ³National Drug and Alcohol Research Centre, Sydney, Australia, ⁴University of Queensland, Brisbane, Austria, ⁵Columbia University Mailman School of Public Health, Newark, NJ, ⁶Global Drug Survey Ltd., London, England

4:15 PET imaging detects dopamine transporter occupancy of new psychoactive substances: Alpha-PVP, pyrovalerone and analogs
Bertha Madras¹, Peter Meltzer², Elihahu Livni³, Ali Bonab⁴, Alan Fischman⁴, ¹McLean Hospital, Belmont, MA, ²Organix, Inc., Woburn, MA, ³Massachusetts General Hospital, Boston, MA, ⁴deceased MGH
WIN, LOSE OR DRAW: REWARD AND EXTINCTION LEARNING

Chairs: Justin Strickland and Marc Kaufman

2:30  **Putamen MRS changes induced by stimulus discrimination and reversal learning in nonhuman primates**  
Brian Kangas¹, Dionyssios Mintzopoulos², Timothy Gillis¹, Jack Bergman¹, Marc Kaufman², ¹ADARC - McLean Hospital, Belmont, MA, ²McLean Hospital, Brain Imaging Center, Belmont, MA

2:45  **Sign-tracking is difficult to extinguish and resistant to multiple cognitive enhancers**  
Christopher Fitzpatrick¹, Justin Creeden¹, Jonathan Morrow¹, ¹University of Michigan, Ann Arbor, MI

3:00  **Relationship between loss aversion and delay discounting in an online drug-using sample**  
William Stoops¹, Justin Strickland¹, ¹University of Kentucky, Lexington, KY

3:15  **Loss aversion in cocaine users: Role of risk and commodity type**  
Justin Strickland¹, Joshua Beckmann¹, Craig Rush¹, William Stoops¹, ¹University of Kentucky, Lexington, KY

3:30  **Negative income shock narratives reduce valuation of extended, prosocial reinforcers in smokers**  
Alexandra Mellis¹, Warren Bickel¹, ¹Virginia Tech Carilion Research Institute, Roanoke, VA

3:45  **Reward/punishment learning and the subjective effects of oxycodone in recreational opioid users**  
Nehal Vadhan¹, Jermaine Jones², Mogali Shanthi², Catherine Myers³, Sandra Comer³, ¹Feinstein Institute for Medical Research, Great Neck, NY, ²Columbia University College of Physicians and Surgeons, New York, NY, ³New Jersey Health Care System, Newark, NJ, ¹Columbia University and NYSPI, New York, NY

4:00  **Failure of extinction in limbic regions predicts more drug use**  
Paul Regier¹, Kanchana Jagannathan¹, Jesse Suh¹, Teresa Franklin¹, Daniel Langleben¹, Stefanie Darnley¹, Elliott Sturgis-Berkowitz¹, Kyle Kampman¹, Charles O’Brien², Anna Rose Childress¹, ¹University of Pennsylvania, Philadelphia, PA, ²University of Pennsylvania, VA Medical Center, Philadelphia, PA

4:15  **Passion "de novo"? In cocaine patients, neutral videos that signal cocaine videos can themselves rapidly come to evoke mesolimbic activation – and this new learning is strongly linked to future relapse**  
Anna Rose Childress¹, Kanchana Jagannathan¹, Paul Regier¹, Jesse Suh¹, Zach Monge¹, Teresa Franklin¹, Reagan Wetherill¹, Kimberly Young¹, Stefanie Darnley¹, Elliott Sturgis-Berkowitz¹, Michael Gawrysiak², Regina Szucs-Reed¹, Daniel Langleben¹, Kyle Kampman¹, Charles O’Brien³, ¹University of Pennsylvania, Philadelphia, PA, ²Delaware State University, Wilmington, DE, ³University of Pennsylvania, VA Medical Center, Philadelphia, PA
Wednesday, June 21, 2017

Symposium XII
Westmount
2:30 - 4:30 PM

OPIOID AND CANNABINOID INTERACTIONS:
PRECLINICAL AND CLINICAL MEASURES OF PAIN,
ABUSE LIABILITY AND DEPENDENCE

Chairs: Margaret Haney and Aron Lichtman

2:30  
Targeting the endogenous cannabinoid system to reduce opioid use and dependence in preclinical studies
A. Lichtman, Virginia Commonwealth University, Richmond, VA

2:55  
Antinociceptive effects and abuse liability of opioid/cannabinoid mixtures
C. France, University of Texas Health Science Center, San Antonio, TX

3:20  
Assessing the analgesic and reinforcing effects of opioid-cannabinoid combinations in the human laboratory
Z. Cooper, Columbia University and NYSP, New York, NY

3:45  
Evaluation of dronabinol for the treatment of opioid withdrawal
S. Walsh, University of Kentucky, Lexington, KY

4:10  
DISCUSSANT: Opioid antagonism and cannabis reinforcement in the human laboratory
M. Haney, Columbia University Medical Center, New York, NY

Late-Breaking Research News
Verdun
4:45 - 5:45 PM

Chair: William Stoops

4:45  
mGluR5 availability in emerging adults at risk for addictions: A high-resolution PET [11C]ABP688 Study
Sylvia Cox¹, Natalia Jaworska², Maria Tippler¹, Natalie Castellanos Ryan³, France Durand¹, Dominique Allard¹, Chawki Benkelfat¹, Alain Dagher¹, Frank Vitaro³, Mara Brendgen⁴, Michel Boivin⁵, Robert Pihl¹, Richard Tremblay⁶, Jean Séguin⁷, Marco Leyton¹, ¹McGill University, Montreal, QC, ²The Royal's Institute of Mental Health Research, Ottawa, Ontario, Canada, ³Université de Montréal, Outremont, QC, ⁴Université de Montréal, Montreal, QC, ⁵Université Laval, Québec, Canada, ⁶CHU Sainte-Justine, Montreal, QC

4:50  
Cannabidiol: Non-clinical assessment of abuse potential
Royston Gray¹, David Heal², Colin Stott¹, Stephen Wright¹, ¹GW Pharmaceuticals PLC, Cambridge, UK, United Kingdom, ²RenaSci Ltd, Nottingham, Nottinghamshire, United Kingdom

4:55  
Altered functional connectivity in ventral attention network in young adult cannabis users
Alicia Thomas¹, Krista Lisdahl¹, ¹University of Wisconsin-Milwaukee, Milwaukee, WI

5:00  
Preventing the use of synthetic marijuana and new psychoactive substances: Two-year outcomes from a cluster randomised controlled trial
Katrina Champion¹, Nicola Newton¹, Lexine Stapinski¹, Maree Teesson¹, ¹University of New South Wales, Sydney, New South Wales
### Wednesday, June 21, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors/Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:05</td>
<td><em>Striatal parkin regulates methamphetamine seeking in long-access self-administration in rats.</em></td>
<td>Akhil Sharma¹, Arman Harutyunyan², Shane Perrine³, Anna Moszcynska³, Wayne State University, Detroit, MI, Eugene Applebaum College of Pharmacy and Health Science, Detroit, MI</td>
</tr>
<tr>
<td>5:10</td>
<td><em>Methamphetamine exposure and withdrawal impacts gut microbiota in rats</em></td>
<td>Odochi Ohia-Nwoko¹, Therese Kosten¹, University of Houston, Houston, TX</td>
</tr>
<tr>
<td>5:15</td>
<td><em>CXCR4 and CCR5 antagonism reduce the rewarding effects of the ‘bath salt’, 3,4-methylenedioxyn-N-methylcathinone (MDPV)</em></td>
<td>Chicora Oliver¹, Jae Kim², Sunil Nayak¹, Temple University, Philadelphia, PA, McLean Hospital, Harvard Medical School, Belmont, MA</td>
</tr>
<tr>
<td>5:20</td>
<td><em>Paternal nicotine exposure transgenerationally alters fear learning and cholinergic function</em></td>
<td>Munir Kutlu¹, Rob Cole², Jess Tumolo², Vinay Parikh², Thomas Gould³, Penn State University, University Park, PA, Temple University, Philadelphia, PA, The Pennsylvania State University, University Park, PA</td>
</tr>
<tr>
<td>5:25</td>
<td><em>RBP-6000 Buprenorphine monthly depot demonstrates efficacy, safety, and exposure/response relationship in opioid use disorder</em></td>
<td>Susan Learned¹, Barbara Haight¹, Celine Laffont¹, Dayong Li¹, Paul Fudala¹, Christian Heidbreder¹, Indivior Inc., Richmond, VA</td>
</tr>
<tr>
<td>5:30</td>
<td><em>Outpatient transition to extended-release naltrexone in opioid use disorder</em></td>
<td>Adam Bisaga¹, Paolo Mannelli², Miao Yu³, Narinder Nangia³, Christine Graham³, David Andrew Tompkins⁴, Thomas Kosten⁵, Sarah Ackerman³, Bernard Silverman³, Maria Sullivan¹, Columbia University and NYSP, New York, NY, Duke University School of Medicine, Durham, NC, Alkermes, Inc., Waltham, MA, Johns Hopkins University School of Medicine, Baltimore, MD, Baylor College of Medicine, Houston, TX</td>
</tr>
<tr>
<td>5:35</td>
<td><em>Results of a double blind placebo controlled randomized trial of extended-release naltrexone among HIV+ inmtes with alcohol use disorders</em></td>
<td>Sandra Springer¹, Russell Barbour², Marwan Azar¹, Frederick Alice¹, Angela Di Paola¹, Yale School of Medicine, New Haven, CT, Yale School of Public Health, New Haven, CT, Yale School of Medicine-AIDS Program, New Haven, CT</td>
</tr>
<tr>
<td>5:40</td>
<td><em>New general population data from the USA on maternal risk factors for fetal alcohol spectrum disorders (FASD) and the prevalence of children with FASD in the USA</em></td>
<td>P. May, University of North Carolina, Nutrition Research Institute, Kannapolis, NC</td>
</tr>
</tbody>
</table>

### Business Meeting
(Members Only)

Salon Bonaventure
6:00 - 7:00 PM

### Dinner/Dancing
Montreal Ballroom
7:30 - 10:30 PM
Thursday, June 22, 2017

Poster Session IV
(Breakfast)

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

Set up time begins Wednesday, 1:00 PM
Must be removed by Thursday, 9:30 AM

SEROTONIN

1. Effect of 5HT polymorphisms on response to vilazodone for cannabis cessation
   Lynneice Bowen¹, Aimee McRae-Clark¹, Nathaniel Baker¹, ¹Medical University of South Carolina, Charleston, SC

2. Buspirone attenuates naloxone-precipitated withdrawal behaviors in morphine-dependent rats
   Catherine Davis-Takacs¹, Kelly Dunn², Yuqing Cao³, Elise Weerts², ¹Johns Hopkins University, Baltimore, MD, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³Sandy Spring Friends High School, Sandy Spring, MD

3. Beta-Arrestin2 involvement in the serotonin 5-HT2C receptor signalosome
   Claudia Soto¹, Kathryn Cunningham¹, Noelle Anastasio¹, Scott Gilbertson², Robert Fox¹, Huang-Chi Du², ¹University of Texas Medical Branch, Galveston, TX, ²University of Houston, Houston, TX

4. The 5-HT2A receptor in the medial prefrontal cortex controls incubation of cocaine cue reactivity
   Erica Holliday¹, Joanna Miszkiel¹, Dennis Sholler¹, Sonja Stutz¹, Robert Fox¹, Noelle Anastasio¹, Kathryn Cunningham¹, ¹University of Texas Medical Branch, Galveston, TX

5. LSD discrimination in male and female Sprague-Dawley rats
   Keli Herr¹, Lisa Baker¹, ³Western Michigan University, Kalamazoo, MI

CLUB DRUGS/NEW PSYCHOACTIVE SUBSTANCES

6. Serotonergic street drugs, inactive "fillers" or potential recreational compounds?
   Michael Gatch¹, Sean Dolan², Michael Forster¹, ¹UNT Health Science Center, Fort Worth, TX, ²University of North Texas, Denton, TX

7. Potent rewarding and reinforcing properties of the amphetamine-type stimulant 3-fluoromethamphetamine in rodents
   Seong Shoon Yoon¹, Mee Jung Choi², ¹Korea Institute of Toxicology, Korea, Korea, Republic of, ²Korea Institute of Toxicology, Republic of Korea

8. Stereoselectivity in abuse-related neurochemical and behavioral effects of novel synthetic amphetamine isomers
   Farhana Sakloth¹, Umberto Battisti¹, Alan Harris¹, Ramsey Sitta¹, Jose Eltit¹, Richard Glennon¹, S. Stevens Negus¹, ¹Virginia Commonwealth University, Richmond, VA
Synthetic cannabinoid augments methamphetamine-induced conditioned place preference in C57BL/6J mice
Jaesuk Yun¹, Sunmi Gu¹, Hyungsoo Kim¹, Younghoon Kim¹, Kyoung Moon Han¹, Hey Jin Cha¹, Hye-kyung Park¹, Ji Soon Shin¹, ¹National Institute of Food and Drug Safety Evaluation, Cheongju-si, China

Effects of low dose mixtures of MDPV and cocaine on locomotor activity and brain monoamine content in Sprague-Dawley rats
Robert Kohler¹, Shane Perrine², Lisa Baker¹, ¹Western Michigan University, Kalamazoo, MI, ²Wayne State University, Detroit, MI

“Ecstasy” to addiction: Discriminative stimulus and reinforcing effects of synthetic cathinone analogs of MDMA
Sean Dolan¹, Michael Gatch², ¹University of North Texas, Denton, TX, ²UNT Health Science Center, Fort Worth, TX

Broad range of drugs detected in pooled urine at an electronic dance music event
Gantt Galloway¹, Reshmi Pal¹, Roy Gerona², ¹Friends Research Institute, Baltimore, MD, ²San Francisco VA Medical Center, San Francisco, CA

Community ketamine users in Taiwan
Sheng-Chang Wang¹, Yu-Cheng Zhao¹, Chieh-Liang Huang², Hsiao-Hui Tsou¹, ¹National Health Research Institutes, Zhunan, Taiwan, ²China Medical University, Taichung, China

Developing psilocybin as a potential pharmacotherapy: Identifying optimal dosing parameters
Albert Garcia-Romeu¹, Frederick Barrett², Matthew Johnson², Roland Griffiths², ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins School of Medicine, Baltimore, MD

Comparative psychopharmacology of psilocybin and dextromethorphan
Theresa Carbonaro¹, Frederick Barrett², Matthew Johnson², Roland Griffiths², ¹University of North Texas Health Science Center, Watauga, TX, ²Johns Hopkins School of Medicine, Baltimore, MD

Psilocybin mushroom occasioned experiences: Impact on attitudes about death and dying
Darrick May¹, Mary Sweeney², Roland Griffiths³, Matthew Johnson³, Ethan Hurwitz², ¹Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³Johns Hopkins School of Medicine, Baltimore, MD

STRESS

Expression of FKBP5 is elevated following chronic cocaine administration
Krista Connelly¹, Ellen Unterwald², ¹Lewis Katz School of Medicine at Temple University, Philadelphia, PA, ²Temple University School of Medicine, Philadelphia, PA

Glucocorticoid-endocannabinoid interactions in the prelimbic cortex mediate stress-potentiated reinstatement of cocaine seeking
Jayme McReynolds¹, Elizabeth Donchev¹, Todd Stollenwerk², Xiaojie Liu², Paul Gottshall¹, Qing-song Liu², Cecilia Hillard², John Mantsch³, ¹Marquette University, Milwaukee, WI, ²Medical College of Wisconsin, Milwaukee, WI
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Exacerbated craving in the presence of stress and drug cues in drug-dependent patients</td>
<td>Kenzie Preston¹, William Kowalczyk², Karran Phillips³, Vahabzadeh Massoud¹, Jialing Lin¹,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mustapha Mezhghanni¹, David Epstein¹, NIDA Intramural Research Program, Baltimore, MD,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIH, Bethesda, MD, NIDA, Bethesda, MD</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Salivary cortisol levels and early inpatient discharge in Brazilian crack-cocaine users</td>
<td>Karina Ligabue¹, Felix Kessler¹, Juliana Scherer¹, Flavio Pechansky¹, Felipe Cornell¹,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vanessa Assuncao¹, Andrei Valerio¹, Marcelo Rocha¹, Milena Stivelmam¹, Lisia von Diemen¹,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brazil</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Markers for hypnotic abuse liability: Cortisol in insomnia?</td>
<td>Timothy Roehrs¹, Thomas Roth¹, Henry Ford Health System, Detroit, MI</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Perceived stress among methadone maintenance treatment patients - a cross-sectional study</td>
<td>Einat Peles¹, Elad Malik², Shaul Schreiber², Anat Sason², Miriam Adelson², Tel Aviv</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>University, Reut, Israel, Israel, Adelson Clinic, Tel Aviv Medical Center, Tel Aviv,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Israel</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Methamphetamine users exhibit fronto-insular inflexibility during a cue reactivity paradigm involving an interoceptive stressor</td>
<td>Jennifer Stewart¹, April May², Susan Tapert¹, Martin Paulus³, CUNY Graduate School of</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public Health and Health Policy, New York, NY, UCSan Diego-Psychiatry, San Diego, CA,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>VA San Diego Healthcare System, San Diego, CA, Laureate Institute for Brain Research:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>UCSD Psychiatry, Tulsa, OK</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Sex differences in daily life stress and craving in drug-dependent patients</td>
<td>Landhing Moran¹, David Epstein¹, William Kowalczyk², Karran Phillips³, Vahabzadeh Massoud¹,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mustapha Mezhghanni¹, Kenzie Preston¹, NIDA Intramural Research Program, Baltimore, MD,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIH, Bethesda, MD, NIDA, Bethesda, MD</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Perceived stress and depression in substance use disorder treatment</td>
<td>Shelly Greenfield¹, R. Kathryn McHugh¹, Dawn Sugarman¹, Meghan Reilly¹, Garrett</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fitzmaurice¹, McLean Hospital, Belmont, MA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Correlates of trust in online health information among patients in opioid treatment</td>
<td>Carmen Masson¹, Ida Chen¹, James Sorensen², Isabel Allen¹, Evan Kletter², Mandana Khalili¹,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>UCSF, San Francisco, CA, UCSF at Zuckerberg San Francisco General Hospital, San Francisco,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA, Baymark, San Francisco, CA</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Development of a mHealth tool to enhance linkage and retention to office-based opioid</td>
<td>Babak Tofghi¹, Joshua Lee¹, Mara Flannery², Edward Nunes³, Scott Sherman⁴, Amalia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>treatment and HIV-HCV care among inpatient detoxification program patients</td>
<td>Pinguello⁵, New York University School of Medicine, New York, NY, NYU Langone Medical Center,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>New York, NY, Columbia University and NYSPI, New York, NY, New York University Medical</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Center, New York, NY, Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>do Sul</td>
<td></td>
</tr>
<tr>
<td>Page</td>
<td>Title</td>
<td>Authors</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Text messaging reduces methamphetamine use and HIV risk behaviors among MSM</td>
<td>Cathy Reback¹, Jesse Fletcher², ¹Friends Research Institute, Los Angeles, CA, ²Friends Research Institute, Baltimore, MD</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Mobile phone and Internet use among people who inject drugs in Fresno, California</td>
<td>Catherine Paquette¹, Jennifer Syvertsen², Robin Pollini³, ¹Pacific Institute for Research and Evaluation, Washington, DC, ²Ohio State University, Columbus, OH, ³West Virginia University-Injury Control Research Center, Morgantown, WV</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Public perceptions of fentanyl on Twitter</td>
<td>Lamisha Muquit¹, Nancy Haug², Steven Linder³, ¹Palo Alto University, Union City, CA, ²Palo Alto University, Los Altos, CA, ³VA Palo Alto Health Care System, San Francisco, CA</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Using Twitter to monitor negative effects of cannabis and synthetic cannabinoid products</td>
<td>Francois Lamy¹, Raminta Daniulaityte¹, Amit Sheth¹, Ramzi W. Nahhas¹, Alan G. Smith¹, Silvia Martins², Robert Carlson¹, ¹Wright State University, Fairborn, OH, ²Columbia University Mailman School of Public Health, Newark, NJ</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>A Web-based self-help intervention with and without chat counseling to reduce cannabis use in problematic cannabis users: Three-arm randomized controlled trial</td>
<td>M. Schaub, Research Institute for Public Health and Addiction, Zurich, Switzerland</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Clinician attitudes, perceived social norms, and intentions to implement Web-delivered interventions</td>
<td>Traci Rieckmann¹, Aimee Campbell², ¹Oregon Health and Science University, Hillsboro, OR, ²Columbia University and NYSPI, New York, NY</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Clinician attitudes, social norms, and intention to use internet-delivered addiction treatment</td>
<td>Aimee Campbell¹, Traci Rieckmann², Sheila Markwardt², Edward Nunes¹, ¹Columbia University and NYSPI, New York, NY, ²Oregon Health and Science University, Hillsboro, OR</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Feasibility of the veterans' recovery line as ancillary care for substance abuse treatment</td>
<td>Destiny Printz¹, David Pilkey¹, Marc Rosen¹, Alicia Heapy¹, Frank Buono², Brent A. Moore¹, ¹VA Connecticut Healthcare System, West Haven, CT, ²Yale School of Medicine, New Haven, CT</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Substance use following brief motivational interviewing intervention among women in a reproductive healthcare clinic</td>
<td>Ariadna Forray¹, Steve Martino¹, Kathryn Gilstad-Hayden¹, Steven Ondersma², Todd Olmstead³, Trace Kershaw⁴, Kimberly Yonkers¹, ¹Yale University-Psychiatry, New Haven, CT, ²Wayne State University-Psychiatry and Behavioral Neurosciences, Detroit, MI, ³University of Texas at Austin, Lyndon B. Johnson School of Public Affairs, ⁴Yale School of Public Health, New Haven, CT</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Acceptability of the therapeutic education system in dually diagnosed inpatients</td>
<td>Alexis Hammond¹, Denis Antoine¹, Maxine Stitzer², Eric Strain¹, ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins Bayview Medical Center, Baltimore, MD</td>
<td></td>
</tr>
</tbody>
</table>
Cognitive functioning and treatment outcomes in a trial of internet-delivered drug and alcohol treatment
Matis Shulman¹, Aimee Campbell¹, Edward Nunes¹, Mei-Chen Hu², Martina Pavlicova³, ¹Columbia University and NYSPI, New York, NY, ²Columbia University Medical Center, Department of Psychiatry, New York, NY, ³Columbia University Mailman School of Public Health, Newark, NJ

Evaluation of two screening devices for cocaine detection in oral fluid
Juliana Scherer¹, Tais Fiorentin², Tanara Sousa¹, Renata Limberger², Flavio Pechansky¹, ¹Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, ²Postgraduate Program in Pharmaceutical Sciences, Federal University of Rio Grande do Sul, Porto Alegre, Brazil

Drug use among Brazilian drivers with oral fluid screening devices as part of traffic checkpoints
Tanara Sousa¹, Juliana Scherer¹, Roberta B. Silvestrin¹, Vinicius S. Roglio¹, Giovana Broele¹, Graciela G. Pasa¹, Jaqueline B. Schuch¹, Tais Fiorentin², Renata Limberger², Flavio Pechansky¹, ¹Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, ²Postgraduate Program in Pharmaceutical Sciences, Federal University of Rio Grande do Sul, Porto Alegre, Brazil

Detection of ethylglucuronide and ethylsulfate in urine after acute administration of different doses of alcohol
Francina Fonseca¹, Julián Andrés Mateus², Clara Pérez Mañá¹, Esther Papasseit³, Adriana Farré³, Esther Menoyo², Soraya Martín², Mitona Pujadas², Rafael de la Torre⁴, Marta Torrens¹, Magí Farré³, ¹Institut de Neuropsiquiatria i Addiccions, Barcelona, Spain, ²Autonomous University of Barcelona, Catalonia, Spain, ³Hospital Universitari Germans Trias i Pujol, School of Medicine, Barcelona, Spain, ⁴d'Investigacio Medica, Barcelona, Spain, Spain

Sex differences in concordance of cannabis self-report and bioassays
Emmalee Bandstra¹, Veronica Accornero¹, Alexandra Fernandez¹, Denise Vidot², Elana Mansoor¹, Lihua Xue¹, James Anthony³, ¹University of Miami Miller School of Medicine, Miami, FL, ²University of Miami, Miami, FL, ³Michigan State University, Lansing, MI

Talking about drugs and sexual risk in HIV primary care: A qualitative exploration of provider practices and patient perceptions
Laurel Weaver¹, Aimee Campbell², Susan Tross³, Don Des Jarlais¹, Margaret Wolff¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Columbia University and NYSPI, New York, NY, ³Columbia University, New York, NY

Developmental patterns of adolescent marijuana and alcohol use and their joint association with sexual risk behavior and outcomes in young adulthood
Kerry Green¹, Rashelle Musci², Pamela Matson³, Renee Johnson², Beth Reboussin⁴, Nicholas Ialongo⁵, ¹University of Maryland, College Park, MD, ²Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, ³Johns Hopkins University, Baltimore, MD, ⁴Wake Forest School of Medicine, Winston-Salem, NC, ⁵Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Development of a mobile game app to reduce high-risk sexual behavior in adolescents under the influence of drugs and/or alcohol
Aileen Gariepy1, Kimberly Hieftje1, Tyra Pendergass1, Erica Miller1, Lynn Fiellin1, 1Yale University, New Haven, CT

Using a “Positive Deviance” framework to discover adaptive risk reduction behaviors among substance-using HIV negative Black men who have sex with men
Allison Ober1, Derek Dangerfield II2, Steve Shoptaw3, Gery Ryan1, Brian Stucky1, Samuel Friedman4, 1RAND Corporation, Arlington, VA, 2University of Southern California, Los Angeles, CA, 3UCLA, Los Angeles, CA, 4National Development and Research Institute, Inc., New York, NY

Partner-level substance use associated with increased sexual risk behaviors among men who have sex with men in San Francisco, CA
Robert Brown1, Caitlin Turner2, Jaclyn Hern3, Glenn-Milo Santos3, 1University of California Berkeley, Berkeley, CA, 2San Francisco Department of Public Health, San Francisco, CA, 3UCSF, San Francisco, CA

Substance use facilitates sexual interactions and increases HIV risk in Black South African MSM
Justin Knox1, Kate Collier1, Amanda Mtshengu2, Matthew Lee1, Tim Lane3, Vasu Reddy4, Deborah Hasin1, Theo Sandfort1, 1Columbia University, New York, NY, 2Human Sciences Research Council, Pretoria, South Africa, 3UCSF, San Francisco, CA, 4University of Pretoria, Gauteng, South Africa

Substance use and sexual expectancies among gay and bisexual men
Thomas Whitfield1, Brett M Millar2, Christian Grov2, Jeffrey Parsons3, 1Center for HIV Educational Studies and Training, New York, NY, 2CUNY Graduate School of Public Health and Health Policy, New York, NY, 3Hunter College, CUNY, New York, NY

The prevalence and impact of sexual violence among Latino men in federally qualified health centers with a history of risky drug use
Amelia Goodfellow1, Curtis Bone2, Mani Vahidi1, Melvin Rico3, Lillian Gelberg3, 1UCLA, Los Angeles, CA, 2Yale School of Medicine, New Haven, CT, 3UCLA Family Medicine, Los Angeles, CA

CRIMINAL JUSTICE

Social support and motivation to change among drug-involved juvenile offenders
Megan Dickson1, Carl Leukefeld1, Hannah Knudsen1, Matt Webster2, Katherine Marks1, Carrie Oser1, Michele Staton3, Jennifer Havens3, 1University of Kentucky, Lexington, KY, 2Center on Drug and Alcohol Research University of Kentucky, Lexington, KY, 3University of Kentucky College of Medicine, Lexington, KY

Childhood parental incarceration and adulthood drug use, sexually transmitted infection, and arrest risk among Blacks and Hispanics in the US: Assessment of moderation by mentorship
Maria Khan1, Joy Scheidell1, Danielle Ompad2, Kelly Quinn1, 1New York University School of Medicine, New York, NY, 2New York University, New York, NY

Correlates of hepatitis c seropositivity among high-risk rural women: Opportunities for treatment and services in the criminal justice system
Michele Staton1, Justin Strickland2, Jennifer Havens1, Matt Webster2, 1University of Kentucky College of Medicine, Lexington, KY, 2University of Kentucky, Lexington, KY
Women in drug court: Differences between sex traders and non-sex traders and longitudinal substance use outcomes
Abenaa Jones¹, Denise Vidot², Catherine Woodstock Striley³, Linda Cottler³, ¹Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, ²University of Miami, Miami, FL, ³University of Florida, Gainesville, FL

Accumulated criminal justice system involvement and mental health outcomes among women who use illicit drugs: Latent class analysis
Jennifer Lorvick¹, Barrot Lambdin¹, Megan Comfort¹, Alex Kral¹, ¹RTI International, Research Triangle Park, NC

High rates of incarceration due to drug trafficking in the last decade in Brazil
Felipe Ornell¹, Juliana Scherer¹, Karina Ligabue¹, Joana Correa de Magalhães Narvaez¹, Carla Dalbosco¹, Rafaela Ornell¹, Renata Maria Dotta², Lisieux Borba Telles¹, Flavio Pechansky¹, Lisia von Diemen¹, Felix Kessler¹, ¹Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, ²Fundação Escola Superior do Ministério Público, Porto Alegre, Brazil

Risks for nonmedical use of prescription opiates among incarcerated African-American men
Carlos Mahaffey¹, Danelle Stevens-Watkins¹, Paris Wheeler¹, ¹University of Kentucky, Lexington, KY

Standardized mortality ratio and rate ratio of hospitalization among illicit drug offenders identified from integrated national databases from 2009 to 2013 in Taiwan
Shang-Chi Wu¹, Chia-Mei Kuo¹, Kevin Chien-Chang Wu¹, Tzu-Pin Lu¹, Wei-J Chen², ¹National Taiwan University, Epidemiology and Preventive Medicine, Taipei City, Taiwan, ²National Taiwan University, Taipei City, Taiwan

Costs of crime associated with stimulant use disorders
Benjamin Enns¹, Emanuel Krebs¹, Kora DeBeck¹, Lindsey Richardson¹, Kanna Hayashi¹, Bohdan Nosyk¹, ¹BC Centre for Excellence in HIV/AIDS, Vancouver, BC

Daily patterns of substance use and violence among a high-risk urban sample
Aaron Dora-Laskey¹, Patrick Carter¹, James Cranford¹, Anne Buu¹, Maureen Walton², Marc Zimmerman¹, Rebecca Cunningham¹, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan-Addiction Research Center, Ann Arbor, MI

Association between cannabis use and lifetime coronary disease
Hannah Crooke¹, Linda Cottler¹, Catherine Woodstock Striley¹, ¹University of Florida, Gainesville, FL

Associations of marijuana quantity and frequency with marijuana motives among emerging adults
Brooke Arterberry¹, Alan Davis², Maureen Walton³, Rebecca Cunningham¹, Frederic Blow³, Erin Bonar¹, ¹University of Michigan, Ann Arbor, MI, ²Bowling Green State University, Ann Arbor, MI, ³University of Michigan-Addiction Research Center, Ann Arbor, MI
The impact of the urban neighborhood environment on longitudinal transitions in marijuana use during emerging adulthood
Beth Reboussin1, Nicholas Ialongo2, Kerry Green3, Debra Furr-Holden4, Renee Johnson5, Adam Milam6, 1Wake Forest School of Medicine, Winston-Salem, NC, 2Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 3University of Maryland, College Park, MD, 4Michigan State University, Lansing, MI, 5Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, 6Johns Hopkins University, Baltimore, MD

Abstinence and reductions in cannabis use are associated with improvements in quality of life among treatment-seeking individuals with cannabis use disorder
Christina Brezing1, C. Jean Choi1, Martina Pavlicova2, Daniel Brooks3, Amy Mahony3, John Mariani3, Frances Levin1, 1Columbia University and NYSPI, New York, NY, 2Columbia University Mailman School of Public Health, Newark, NJ, 3NYSPI, New York, NY

Repetitive transcranial magnetic stimulation can be safely and feasibly applied to the dorsolateral prefrontal cortex of non-treatment-seeking heavy cannabis users
G. Sahlem, Medical University of South Carolina, Charleston, SC

Trends and factors related to coping-related motives for cannabis use among a large sample of adult cannabis users
Ashley Knapp1, Catherine Stanger2, Jacob Borodovsky1, Alan Budney1, 1Geisel School of Medicine at Dartmouth, Hanover, NH, 2Dartmouth College, Hanover, NH

Alcohol control policies and youth past 30-day marijuana and heavy marijuana use in 45 states, 1991-2011
Sherri-Chanelle Brighthaupt1, Renee Johnson2, Julie Johnson3, 1Johns Hopkins University, Baltimore, MD, 2Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, 3Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Documentation of marijuana use in the electronic health records of community health center patients
Steffani Bailey1, John Muench1, Allison O'Neill2, Lynn Kunkel1, Stuart Cowburn2, Kim Hoffman1, Javier Ponce Terashima3, Dennis McCarty1, 1Oregon Health and Science University, Hillsboro, OR, 2OCHIN, Inc., Portland, OR, 3International Center for Advanced Research and Applied Science, Lima, Peru

Hospitalizations due to cannabis-related disorders in Canada
Sarah Wallingford1, Amy Porath2, Matthew Young3, 1Canadian Centre on Substance Abuse, Ottawa, ON, 2Canadian Centre on Substance Abuse, Ottawa, ON, 3Canada

Mortality from cardiovascular disease and diabetes among cannabis users
Omayma Alshaarawy1, James Anthony1, 1Michigan State University, Lansing, MI

Examining the relationship between exposure to marijuana advertising and recent marijuana use
Sean LeNoue1, Joseph Sakai1, Christian Thurstone2, Susan Young2, Shannon McWilliams1, Tamara Wall3, Christian Hopfer1, 1University of Colorado School of Medicine, Aurora, CO, 2University of Colorado School of Medicine, Department of Psychiatry, Aurora, CO, 3UCSan Diego, La Jolla, CA
Survey of Australians' knowledge, perception and use of cannabis for medicinal purposes
Jan Copeland¹, Peter Gates¹, Stephanie Todd¹, ¹University of South Wales, Sydney, Australia

Medicinal versus recreational cannabis use among returning veterans
Jane Metrik¹, Shayna Bassett², Elizabeth Aston³, Kristina Jackson³, Brian Borsari¹, ¹Warren Alpert Medical School, Providence, RI, ³University of Rhode Island, Department of Psychology, Kingston, RI, ³Center for Alcohol and Addiction Studies, Brown University School of Public Health, Providence, RI, ⁴San Francisco VA Medical Center, San Francisco, CA

Cross-validation of the CUDIT-R among a sample of veteran medicinal cannabis users: Evidence of poor model fit
Mallory Loflin¹, Kimberly Babson¹, Kendall Browne², Marcel Bonn-Miller¹, ¹VA Palo Alto Health Care System, San Francisco, CA, ²VA Puget Sound Healthcare System, Seattle, WA

Latent factor structure of a behavioral economic marijuana demand curve
Elizabeth Aston¹, Samantha Farris², James MacKillop³, Jane Metrik², ¹Center for Alcohol and Addiction Studies, Brown University School of Public Health, Providence, RI, ²Warren Alpert Medical School, Providence, RI, ³McMaster University, Peter Boris Centre for Addictions Research, Hamilton, ON

Budtender perspectives on shared decision-making in medical cannabis dispensaries
Nicholas Peiper¹, Angelica Meinhofer¹, Scott Novak¹, ¹RTI International, Research Triangle Park, NC

Exploring the relationship between medical marijuana laws and educational attainment.
Andrew Plunk¹, Paul Harrell¹, ¹Eastern Virginia Medical School, Norfolk, VA

DRUGS AND MEMORY

The association of learning strategy and delayed recall in adolescents and young adult marijuana users and controls
Kyle Jennette¹, Erika R. Gilbart¹, Krista Lisdahl¹, ¹University of Wisconsin-Milwaukee, Milwaukee, WI

Does physical activity influence the association between cannabis use and memory?
Ileana Pacheco-Colon¹, Samuel Hawes¹, Jacqueline Duperrouzel¹, Raul Gonzalez¹, ¹Florida International University, Miami, FL

Acute effects of cannabis on verbal memory in young adults: Relationship to tobacco use
Justin Matheson¹, Robert Mann¹, Bernard Le Foll¹, Gina Stoduto¹, Christine Wickens¹, Marilyn Huestis², Bruna Brands³, ¹Centre for Addiction and Mental Health, Toronto, ON, ²NIDA, Bethesda, MD, ³Health Canada, Toronto, ON

Testing a novel prospective memory training program in substance users
Meredith Berry¹, Mary Sweeney¹, Matthew Johnson², ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins School of Medicine, Baltimore, MD
Cognitive rehabilitation for individuals with opioid use disorder: A randomized controlled trial
Mehmet Sofuoglu¹, Alireza Noroozi², Reza Daneshmand³, Ahmadreza Samiei⁴, Tara Rezapour⁵, Javad Hatami⁶, Ali Farhoudian⁶, Hamed Ekhtiar⁶, ¹Yale University, New Haven, CT, ²Tehran University of Medical Sciences, Tehran, Iran, ³University of Social Welfare and Rehabilitation Sciences, Tehran, Iran, ⁴Arak University of Medical Sciences, Arak, Iran, ⁵Institute for Cognitive Science Studies, Tehran, Iran, ⁶Institute for Cognitive Science Studies, Tehran, Tehran

Non-medical prescription opioid use and age at first use: Examination of gender differences in youth
Vicki Osborne¹, Catherine Woodstock Striley¹, Linda Cottler¹, ¹University of Florida, Gainesville, FL

Trajectories of nonmedical prescription drug use: Assessing the impact of early exposure to prescription drugs
Philip Veliz¹, John Schulenberg¹, Sean McCabe¹, ¹University of Michigan, Ann Arbor, MI

Prevalence of non-medical use of prescription drugs in the United States in 2016
Kevin Patrick May¹, Colleen Haynes¹, Karilynn Rockhill¹, Zachary Margolin¹, Richard Dart¹, Jody Green¹, ¹Rocky Mountain Poison and Drug Center, Denver, CO

Prevalence of illicit drug use: Survey of non-medical use of prescription drugs program compared to NSDUH
Karilynn Rockhill¹, Colleen Haynes¹, Kevin Patrick May¹, Zachary Margolin¹, Richard Dart¹, Jody Green¹, ¹Rocky Mountain Poison and Drug Center, Denver, CO

Motivations for prescription opioid use by diversion pattern
Amy Elliott¹, Jasmine Mack¹, Kelly Gurka¹, Catherine Woodstock Striley¹, Linda Cottler¹, ¹University of Florida, Gainesville, FL

Increased incoming diversion among users of both non-medical prescription opioids and sedatives compared to individual users
Sadaf A Milani¹, Mirsada Serdarevic², Vicki Osborne², Linda Cottler², Catherine Woodstock Striley², ¹University of Florida, Department of Epidemiology, Gainesville, FL, ²University of Florida, Gainesville, FL

Illicit gabapentin (GBP) use among nonmedical prescription opioid users: Findings from the national opioid misuse, abuse, and diversion study (NOMAD)
Scott Novak¹, Erica Peters², Nick Peiper¹, Mark Edlund¹, ¹RTI International, Research Triangle Park, NC, ²Battelle Memorial Institute, Baltimore, MD

Mandatory use of a prescription drug monitoring program and impact on opioid dispensing
Erin Winstanley¹, Yifan Zhang¹, Rebecca Mashni², Sydney Schnee², Jonathan Penn², Jill Boone², Cameron McNamee³, Neil MacKinnon³, ¹West Virginia University, Morgantown, WV, ²University of Cincinnati, Cincinnati, OH, ³State of Ohio Board of Pharmacy, Columbus, OH
The impact of a potentially tamper-resistant controlled-release formulation of oxycodone: Key findings from the national opioid medications abuse deterrence (NOMAD) study

Briony Larance1, Robert Ali2, Michael Farrell3, Amy Peacock3, Raimondo Bruno4, Nichola Lintzeris5, Timothy Dobbins3, Louisa Degenhardt6, 1University of South Wales, Sydney, Australia, 2WHO Collaborating Centre for the Treatment of Drug and Alcohol Problems, Adelaide, South Australia, Australia, 3National Drug and Alcohol Research Centre, Sydney, Australia, 4University of Tasmania, Sydney, New South Wales, Australia, 5Drug and Alcohol Services, South Eastern Sydney Local Health District, Sydney, Australia, 6National Drug and Alcohol Research Centre, Sydney, Australia

Impact of Florida PDMP introduction, pill mill legislation and oxycontin reformulation on tablets dispensed in Florida and California

Paul Coplan1, Angela DeVeaugh-Geiss1, V. anna Gyarmathy1, Venkatesh Harikrishnan1, 1Purdue Pharma L.P., Stamford, CT

HCV in social networks of young adults who misuse prescription opioids and heroin

Alia Al-Tayyib1, Stephen Muth2, Eric Rice3, Paula Riggs4, 1Denver Public Health, Denver, CO, 2Quintus-ential Solutions, Colorado Springs, CO, 3University of Southern California, Los Angeles, CA, 4University of Colorado School of Medicine, Aurora, CO

Medical consequences of the use of prescription opiates and other medications in intentional self-harm

Kenneth Conner1, Timothy Wiegand1, Rachel Gorodetsky1, Rachel Schult1, Kimberly Kaukeinen1, Peter Crane1, 1University of Rochester Medical Center, Rochester, NY

“That fentanyl dope is way worse”: Characterizing fentanyl outbreaks in the Dayton, Ohio, area

Raminta Daniulaityte1, Francois Lamy1, Matthew Juhascik2, Ioana Sizemore1, Mussa Zatreh1, Kraig Strayer1, Robert Carlson1, 1Wright State University, Fairborn, OH, 2Montgomery Co. Coroner's Office, Montgomery, PA

The association between neighborhood deprivation and past month prescription opioid use

Hui Hu1, Catherine Woodstock Striley1, Linda Cottler1, 1University of Florida, Gainesville, FL

Risk of amphetamine use disorder and mortality among incident users of prescribed stimulant medications in the Veterans Administration

Arthur Westover1, Bryon Adinoff3, Ethan Halm1, Paul Nakonezny1, 1University of Texas Southwestern Medical Center, Dallas, TX

The association between different patterns of non-medical use of stimulants and motivations for use

Yiyang Liu1, Catherine Woodstock Striley1, Linda Cottler1, 1University of Florida, Gainesville, FL

Prescription medication misuse and hazardous drinking among national guard soldiers

Lynn Massey1, Maureen Walton2, Richard McCormick3, Marcia Valenstein1, Kristen Barry1, Heather Walters1, Amy Bohnert1, Mark Ilgen1, James Cranford1, Frederic Blow2, 1University of Michigan, Ann Arbor, MI, 2University of Michigan-Addiction Research Center, Ann Arbor, MI, 3Case Western Reserve University, Cleveland, OH
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Attitudes toward pharmacotherapies among current prescription opioid users</td>
<td>Andrew Huhn¹, David Andrew Tompkins¹, Kelly Dunn¹, ¹Johns Hopkins University School of Medicine, Baltimore, MD</td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Association between mutual-help groups and abstinence among prescription opioid dependent patients, with and without agonist treatment, during 42-month post-treatment follow-up</td>
<td>Roger Weiss¹, Margaret Griffin¹, R. Kathryn McHugh¹, Sterling Karakula¹, ¹McLean Hospital, Belmont, MA</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>The psychiatric medication discontinuation/reduction (PMDR) study: Initial findings</td>
<td>Lauren Jessell¹, Laysha Ostrow², David Cohen³, Manton Hurd, ¹New York University, New York, NY, ²Live and Learn, Morro Bay, CA, ³UCLA, Los Angeles, CA</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Peripheral pro-inflammatory cytokines participate in chronic morphine-induced hyperalgesia in mice</td>
<td>Shiroh Kishioka¹, Fumihiro Saika¹, Norikazu Kiguchi¹, Shinsuke Matsuzaki¹, ¹Wakayama Medical University, Wakayama, Japan</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Tolerance and cross-tolerance to the antinociceptive effects of oxycodone and the imidazoline I2 receptor agonist phenytoine in adult male rats</td>
<td>Jun-Xu Li¹, David Thorn¹, Yanan Zhang², ¹State University of New York at Buffalo, Buffalo, NY, ²RTI International, Research Triangle Park, NC</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Chronic pain, trauma, and psychosocial functioning among patients entering methadone maintenance treatment</td>
<td>Declan Barry¹, Mark Beitel², Lynn Madden³, Reed Bobroff⁴, Scott Farnum³, Kathryn Eggert³, Robert Freeman³, Ehab Hussein³, ¹Yale School of Medicine, New Haven, CT, ²Yale University-APT Foundation, New Haven, CT, ³APT Foundation, Inc., New Haven, CT, ⁴Yale University, New Haven, CT</td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Opioid use for chronic pain among patients with HIV</td>
<td>Jonathan Colasanti¹, Marlene C. Lira², Debbie Cheng², Leah S. Forman², Meg Sullivan², Christin Root¹, Catherine Abrams¹, Melissa Podolsky², Wendy S. Armstrong¹, Jeffrey Samet², Carlos del Rio¹, ¹Emory University, Atlanta, GA, ²Boston University School of Medicine, Boston, MA</td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Patient concerns and help-seeking for problems with opioid medications for chronic non-cancer pain</td>
<td>Gabrielle Campbell¹, Briony Larance¹, Suzanne Nielsen¹, Teleri Moore¹, Courtney O'Donnell¹, Louisa Degenhardt², ¹University of South Wales, Sydney, Australia, ²National Drug and Alcohol Research Centre, Sydney, Australia</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>The between and within-person moderation of associations between negative affect and cravings by experiences of pain among patients with opiate use disorder</td>
<td>H.H. Cleveland¹, M Cleveland², Dean Stankoski¹, E Deneke⁴, E. Bixler⁵, Roger Meyer⁶, S. Bunce⁷, ¹Penn State University, University Park, PA, ²Washington State University, Pullman, WA, ³Penn State University College of Medicine, Hershey, PA, ⁴Caron Treatment Center, Wernersville, PA, ⁵Penn State College of Medicine, Hershey, PA, ⁶Penn State College of Medicine, Psychiatry, Washington, DC</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Institution(s)</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Evaluating LTP-like rTMS as a tool to reduce pain and craving in individuals with non-medical prescription opiate use</td>
<td>Logan Dowdle¹, Sarah Hamilton¹, Jeffrey Borckardt¹, Sudie Back¹, Colleen Hanlon¹, Medical University of South Carolina, Charleston, SC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prophylactic sleep improvement reduces post-surgery pain and opiate use</td>
<td>Timothy Roehrs¹, Thomas Roth¹, Henry Ford Health System, Detroit, MI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do cannabinoids have the potential to be opioid-sparing in chronic pain treatment? A systematic review and meta-analyses</td>
<td>Suzanne Nielsen¹, Pamela Sabioni², Jose Trigo³, Mark Ware³, Brigid Betz-Stablein¹, Bridin Murnion⁴, Kok Eng Khor⁵, Nichola Lintzeris⁶, Michael Farrell⁷, Smith Andrew², Bernard Le Foll², University of South Wales, Sydney, Australia, Centre for Addiction and Mental Health, Toronto, ON, McGill University, Montreal, Quebec, Canada, University of Sydney, Sydney, Australia, Prince of Wales Hospital, New Territories, Hong Kong, Drug and Alcohol Services, South Eastern Sydney Local Health District, Sydney, Australia, National Drug and Alcohol Research Centre, Sydney, Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco use and debilitating pain: Understanding sex and gender differences in a primary care cohort with a history of risky drug use</td>
<td>Curtis Bone¹, Lori Bastian², Amelia Goodfellow³, William Becker², Lillian Gelberg⁴, Yale School of Medicine, New Haven, CT, Yale University, New Haven, CT, UCLA, Los Angeles, CA, UCLA Family Medicine, Los Angeles, CA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please be advised that no photographing of presentations or data is permitted. Badges must be worn at all times and are required for admission into all events and sessions.
Thursday, June 22, 2017

Oral Communications 22
Westmount
9:00 - 10:00 AM

DEFENSE DE FUMER: NICOTINE

Chairs: Lance McMahon and Sean Luo

9:00
Examing the capacity of nAChR antagonists to block the effects of nicotine in nicotine-tolerant C57BL/6J mice
Fernando de Moura¹, Lance McMahon², McLean Hospital, Harvard Medical School, Belmont, MA, University of Texas Health Science Center, San Antonio, TX

9:15
Positron emission tomography imaging of nicotine-induced dopamine release in squirrel monkeys using [18F]Fallypride
Jennifer Naylor¹, Amy Goodwin², Katelin Matazel¹, Takato Hiranita¹, Merle Paule¹, U.S. Food and Drug Administration, Silver Spring, MD, U.S. Food and Drug Administration - National Center for Toxicological Research, Jefferson, AR

9:30
A course of methylphenidate may improve smoking cessation outcome in patients with more severe ADHD: Results from follow-up data from a multi-site randomized controlled trial
Sean Luo¹, Edward Nunes², Lirio Covey¹, Mei-Chen Hu¹, Theresa Winhusen³, Columbia University, New York, NY, Columbia University and NYSPI, New York, NY, University of Cincinnati, Cincinnati, OH

9:45
The effectiveness of a peer-led tobacco cessation intervention among poor and underserved using community-based participatory research
Payam Sheikhattari¹, Jummai Apata¹, Jane Buccheri², Mary Gunning³, Fernando Wagner¹, Kevon-Mark Jackman¹, Morgan State University, Baltimore, MD, CEASE Community Action Board, Catholic Charities Head Start of Baltimore City, Baltimore, MD

Oral Communications 23
Outremont
9:00 - 10:00 AM

LA CHIMIE: DRUG DEVELOPMENT STRATEGIES

Chair: Andrew Coop

9:00
UMB 426: A pyranomorphinan with a profile of mu agonism/delta antagonism
Andrew Coop¹, Mohammad Ansari¹, Jason Healy², Rae Matsumoto³, University of Maryland School of Pharmacy, Baltimore, MD, West Virginia University, Morgantown, WV, Touro University California, Vallejo, CA

9:15
In vitro and in vivo characterization of N-butyl-N-phenylethyl-N-3-hydroxyphenylethyl- amine as an “extremely” G-protein signaling biased kappa opioid receptor agonist
Amelia Dunn¹, Eduardo Butelman¹, Mary Jeanne Kreek¹, The Rockefeller University, New York, NY
Chemical studies towards understanding functional selectivity at peripheral kappa receptors
Stephanie Johnson¹, Joshua Zamora², Rachel Crowley¹, Teresa Chavera², William Clarke², Kelly Berg², Thomas Prisinzano³, ¹University of Kansas, Lawrence, KS, ²University of Texas Health Science Center, Houston, TX, ³University of Kansas School of Pharmacy, Lawrence, KS

Predicting opioid binding affinity using molecular docking
Christopher Ellis¹, Marlene Kim¹, Naomi Kruhlak¹, E. Gregory Hawkins¹, Lidiya Stavitskaya¹, ¹U.S. Food and Drug Administration, Silver Spring, MD

Oral Communications 24
Mont-Royal
9:00 - 10:00 AM

BETTER THAN BLOBS: NEURAL CONNECTIVITY

Chairs: Kelly Dumais and Colleen Hanlon

9:00 Sex differences in behavioral and neural responses to reduced-nicotine cigarettes
Paul Faulkner¹, Dara Ghahremani¹, Nicole Petersen¹, Edythe London¹, ¹UCLA, Los Angeles, CA

9:15 Sex differences in default mode network suppression during exposure to smoking cues in nicotine-dependent individuals
Kelly Dumais¹, Reagan Wetherill², Teresa Franklin², Amy Janes¹, ¹McLean Hospital, Harvard Medical School, Belmont, MA, ²University of Pennsylvania, Philadelphia, PA

9:30 TMS targeting ventromedial prefrontal cortex modulates craving and salience circuitry in cocaine users
Tonisha Kearney-Ramos¹, Logan Dowdle¹, Mark George¹, Colleen Hanlon¹, ¹Medical University of South Carolina, Charleston, SC

9:45 Cortico-limbic-striatal functional connectivity and behavior are impacted by dietary environment and exposure to social stressors in female rhesus macaques
Jodi Godfrey¹, Melanie Pincus¹, Eric Feczko², Eric Earl², Damien Fair², Vasiliki Michopoulos¹, Mark Wilson¹, Mar Sanchez¹, ¹Yerkes National Primate Research Center, Atlanta, GA, ²Oregon Health and Science University, Hillsboro, OR
TREATMENT POUTINE-STYLE: COMBINATION TREATMENTS

Chair: Gregory Collins

9:00  
*Effects of the nicotinic agonist varenicline, the novel nicotinic antagonist r-hPDI, and the dopamine transporter inhibitor r-modafinil on co-use of alcohol and nicotine in female P rats*
Sarah Maggio¹, Meredith Saunders², Thomas Baxter², Kimberly Nixon³, Mark Prendergast³, Gaungrong Zheng⁴, Peter Crooks⁴, Rachel Slack⁵, Amy Newman⁵, Jon Thorson⁶, Linda Dwoskin¹, Michael Bardo¹, ¹University of Kentucky, Lexington, KY, ²University of Kentucky, Department of Psychology, Lexington, KY, ³University of Kentucky, Department of Pharmaceutical Sciences, Lexington, KY, ⁴University of Arkansas for Medical Sciences, Little Rock, AR, ⁵NIDA Intramural Research Program, Baltimore, MD, ⁶Department of Pharmaceutical Sciences, University of Kentucky, Lexington, KY

9:15  
*Effects of lorcaserin and buspirone, administered alone and in combination, on cocaine self-administration in rhesus monkeys*
Gregory Collins¹, Charles France¹, ¹University of Texas Health Science Center, San Antonio, TX

9:30  
*Effect of varenicline alone and in combination with nabilone on cannabis withdrawal and relapse in tobacco-smoking cannabis users*
Evan Herrmann¹, Ziva Cooper², Gillinder Bedi³, Divya Ramesh⁴, Rebecca Balter¹, Stephanie Reed¹, Sandra Comer², Richard Foltin¹, Margaret Haney¹, ¹Columbia University Medical Center, New York, NY, ²Columbia University and NYSPI, New York, NY, ³Columbia University, New York, NY, ⁴University of Connecticut, Storrs, CT

9:45  
*Bupropion-naltrexone combinations as a pharmacotherapy for cocaine-use disorder*
Craig Rush¹, B. Levi Bolin¹, Abner Rayapati¹, Hays Lon¹, Joshua Lile¹, William Stoops¹, ¹University of Kentucky, Lexington, KY
WHO'S USING WHAT NOW: OPIOID EPIDEMIOLOGY

Chairs: Alexander Walley and Silvia Martins

10:15 Changes in lifetime heroin use and heroin use disorder: United States 2001-2002 to 2012-2013
Silvia Martins¹, Aaron Sarvet¹, Julian Santaella-Tenorio¹, Tulshi Saha², Bridget Grant², Deborah Hasin¹, ¹Columbia University, New York, NY, ²NIAAA Intramural Research Program, Bethesda, MD

10:30 The impact of opioid poisonings on hospital use in Canada
Vera Grywacheski¹, Sarah Wallingford², Aqsa Malik², Sheril Perry¹, Krista Louie¹, Matthew Young², ¹Canadian Institute for Health Information, Montreal, Quebec, ²Canadian Centre on Substance Abuse, Ottawa, ON

10:45 Excess mortality in children born to opioid-involved parents: A national register study in Taiwan
Chuan-Yu Chen¹, Shao-You Fang², Nicole Huang³, Su-Hui Chang³, ¹National Taiwan University, Taipei, Taiwan, ²Children and Family Research Center, National Taiwan University, Taipei, Taiwan, ³National Taiwan University, Epidemiology and Preventive Medicine, Taipei City, Taiwan

11:00 Emergency department visits, along with medical doctor visits, greatly increase odds of prescription opioid use
Mirsada Serdarevic¹, Sadaf A Milani², Henry Young¹, Catherine Woodstock Striley¹, Linda Cottler¹, ¹University of Florida, Gainesville, FL, ²University of Florida, Department of Epidemiology, Gainesville, FL

11:15 Long-term opioid prescribing after inpatient surgery
Karsten Bartels¹, Shannon McWilliams², Angela Moss³, Ingrid Binswanger⁴, Christian Hopfer², Susan Mikulich-Gilbertson², ¹University of Colorado, Boulder, CO, ²University of Colorado School of Medicine, Aurora, CO, ³University of Colorado, Denver, CO, ⁴Kaiser Permanente, Oakland, CA

11:30 Overdoses on prescribed opioids in Massachusetts, 2013-14
Alexander Walley¹, Dana Bernson², Marc Larochelle¹, Traci Green¹, Leonard Young², Thomas Land², ¹Boston University School of Medicine, Boston, MA, ²Massachusetts Department of Public Health, Boston, MA

11:45 “Hooked on” prescription opioids prior to heroin use among people who inject drugs in Fresno, California
Robin Pollini¹, Catherine Paquette², Jennifer Syvertsen³, ¹West Virginia University-Injury Control Research Center, Morgantown, WV, ²Pacific Institute for Research and Evaluation, Washington, DC, ³Ohio State University, Columbus, OH

12:00 Fentanyl in methadone-maintained treatment clients
Cynthia Arfken¹, Jessica Suchanek¹, Gary Rhodes¹, Joseph Urbel¹, Mark Greenwald¹, ¹Wayne State University, Detroit, MI
Oral Communications 27

Movers and Shakers: Pharmacokinetic Outcomes

Chairs: Philip Vieira and Sharon Walsh

10:15 Individual differences in drug pharmacokinetics using a novel biosensor technology in awake behaving animals
Philip Vieira¹, Christina Shin², Tod Kippin², Netz Arroyo-Curras³, Kevin Plaxco³, ¹California State University, Los Angeles, CA, ²UCSF, San Francisco, CA, ³UCSB, Santa Barbara, CA

10:30 Therapeutic potential of highly efficient long-acting cocaine hydrolases
Fang Zheng¹, Chang-Guo Zhan¹, ¹University of Kentucky, Lexington, KY

10:45 Influence of pregnancy on the nicotine metabolite ratio: Changes during antepartum and postpartum
Christopher Arger¹, Taraneh Taghavi², Sarah Heil¹, Joan Skelly¹, Rachel Tyndale³, Stephen Higgins¹, ¹University of Vermont, Burlington, VT, ²University of Toronto, Toronto, ON

11:00 Does electronic cigarette propylene glycol and vegetable glycerin ratio influence nicotine delivery, subjective effects, and puff topography?
Thomas Eissenberg¹, Tory Spindle¹, Hannah Mayberry², Nareg Karaoghlanian³, Alan Shihadeh³, Marzena Hiler¹, ¹Virginia Commonwealth University, Richmond, VA, ²Center for the Study of Tobacco Products, Virginia Commonwealth University, Richmond, VA, ³American University of Beirut, Beirut, Lebanon

11:15 Buprenorphine weekly depot provides rapid and sustained hydromorphone blockade in individuals with opioid use disorder: A phase II study
Sharon Walsh¹, Sandra Comer², Brad Vince³, Naama Levy-Cooperman⁴, Michelle Lofwall⁵, Jermaine Jones⁶, Debra Kelsh, Paul Nuzzo¹, Marion Coe¹, Behshad Sheldon⁷, Fredrik Tiberg⁸, Sonnie Kim⁷, ¹University of Kentucky, Lexington, KY, ²Columbia University and NYSPI, New York, NY, ³Vince and Associates, Malvern, PA, ⁴Altreos Research Partners Inc., Toronto, ON, Canada, ⁵University of Kentucky College of Medicine, Lexington, KY, ⁶Columbia University College of Physicians and Surgeons, New York, NY, ⁷Braeburn Pharmaceuticals, Princeton, NJ, ⁸Camurus, Lund, Sweden

11:30 CAM2038 (q1w): Pharmacokinetics and pharmacokinetic/pharmacodynamic evaluation of opioid blockade in humans
Marion Coe¹, Paul Nuzzo¹, Naama Levy-Cooperman², Sandra Comer³, Fredrik Tiberg⁴, Sonnie Kim⁵, Sharon Walsh¹, ¹University of Kentucky, Lexington, KY, ²Altreos Research Partners Inc., Toronto, ON, Canada, ³Columbia University and NYSPI, New York, NY, ⁴Camurus, Lund, Sweden, ⁵Braeburn Pharmaceuticals, Princeton, NJ
11:45  
Concentrated naloxone nasal spray for opioid overdose reversal: A pharmacokinetic study in healthy volunteers
Rebecca McDonald¹, Ulrike Lorch², Jo Woodward¹, Björn Bosse³, Helen Johnson³, Gill Mundin¹, Kevin Smith³, John Strang⁴, ¹King’s College, London, UK, ²Richmond Pharmacology Ltd, London, UK, ³Mundipharma Research Ltd., Cambridge, UK, ⁴King’s College, London, UK, United Kingdom

12:00  
Scenarios that affect alcohol pharmacokinetics: Exercise and last call
Elizabeth Ryan¹, Scott Lukas¹, Jane McNeil², Justin Shepherd¹, ¹McLean Hospital, Harvard Medical School, Belmont, MA, ²McLean Hospital, Belmont, MA

Oral Communications 28
Verdun
10:15 AM - 12:15 PM

CAN'T WAIT FOR A SESSION ON IMPULSIVITY!!!

Chairs: Dennis Sholler and Eduardo Butelman

10:15  
Reducing impulsivity for food and cocaine with progesterone and atomoxetine in male and female rats
John Smethells¹, Natasha Swalve¹, Rebecca Younk¹, Marilyn Carroll¹, ¹University of Minnesota, Minneapolis, MN

10:30  
A new model of cortical 5-HT2A receptor dysfunction in rats
Dennis Sholler¹, Noelle Anastasio¹, Robert Fox¹, Erica Holliday¹, Amanda Price¹, Kathryn Cunningham¹, ¹University of Texas Medical Branch, Galveston, TX

10:45  
Varieties of impulsivity in opiate and stimulant users
Jasmin Vassileva¹, Kiril Bozgunov², Elena Psederska², Dimitar Nedelchev², Victoria Dobrojalieva², Georgi Vasilev², ¹Virginia Commonwealth University-Psychiatry, Richmond, VA, ²Bulgarian Addictions Institute

11:00  
Relationship between trait impulsivity and maximum lifetime exposure to specific drugs: A dimensional analysis
Eduardo Butelman¹, Rebecca Fry¹, Rachel Kimani¹, Joel Correa da Rosa¹, Mary Jeanne Kreek¹, ¹The Rockefeller University, New York, NY

11:15  
Regional cerebral blood flow in buprenorphine-maintained opioid addicts: Associations with cognition, impulsivity, and substance use
Dieter Meyerhoff¹, Donna Murray¹, Thomas Schmidt¹, Troy Murray², Timothy C Durazzo¹, Joseph Guydish², ¹San Francisco VA Medical Center, San Francisco, CA; ²The Center for Imaging of Neurodegenerative Diseases, San Francisco, CA; ³Stanford University, Stanford, CA; ⁴UCSF, San Francisco, CA

11:30  
Causal pathways between impulsiveness, crack cocaine use consequences and attention-deficit/hyperactivity disorder
Mayra Pachado¹, Alice Willhelm¹, Luciano S. P. Guimarães¹, Flavio Pechansky², Felix Kessler², Rosa M. M. de Almeida², ¹Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, ²Center for Drug and Alcohol Research of, Federal University of Rio Grande do Sul, Porto Alegre, Brazil
Marijuana expectancies and impulsivity: Acquired preparedness in marijuana users
Rachel Luba¹, Melissa Slavin¹, Stacey Farmer¹, Mitch Earleywine¹, ¹State University of New York at Albany, Albany, NY

Cognitive-behavioral mediators and moderators of the relationship between impulsivity traits and adolescent alcohol use: Identifying unique targets for prevention
Kiri Patton¹, Matthew Gullo¹, Jason Connor¹, Gary Chan², Adrian Kelly², John Toumbourou³, Richard F Catalano⁴, ¹University of Queensland, Brisbane, Austria, ²Centre for Youth Substance Abuse Research, Herston, Queensland, ³Deakin University, School of Psychology, Burwood, Australia, ⁴Social Development Research Group, University of Washington, Seattle, WA

Symposium XIII
Westmount
10:15 AM - 12:15 PM

IS TWO BETTER THAN ONE? ENDOCANNABINOID INVOLVEMENT IN STRESS, REWARD AND MOTIVATION: IMPLICATIONS FOR UNDERSTANDING AND TREATING SUBSTANCE USE DISORDER

Chairs: John Mantsch and Cecilia Hillard

10:15  Endocannabinoid signaling and stress
C. Hillard, Medical College of Wisconsin, Milwaukee, WI

10:40  Causal control of negative reinforcement by dopamine release and its modulation by endogenous cannabinoids
J. Cheer, University of Maryland School of Medicine, Baltimore, MD

11:05  Setting the stage for relapse: CB1 cannabinoid receptors mediate stress and sex hormone regulation of drug seeking
J. Mantsch, Marquette University, Milwaukee, WI

11:30  Brain CB2 receptor: A potential new target for treatment of cocaine addiction
Z. Xi, NIDA, Bethesda, MD

11:55  DISCUSSANT: Endocannabinoids and substance use disorder: Clinical implications, treatment opportunities and future research directions
S. Patel, Vanderbilt University Medical Center, Nashville, TN

BRUNCH WITH CHAMPIONS
Salon Ville-Marie
12:15 - 1:15 PM
(Pre-Registrants Only)
INTOXICATING CONNAISSANCE:
ALCOHOL RESEARCH

Chairs: Jessica Weafer and Elise Weerts

1:15 Maternal alcohol consumption during 1st trimester and child internalizing and externalizing problems: A sibling control study
Ingunn Ola Lund1, Espen Moen Eilertsen1, Line C. Gjerde1, Eivind Ystrøm1, 1The Norwegian Institute of Public Health, Oslo, Norge

1:30 Alcohol expectancy in early adolescence with problematic drinking in young adulthood
Wan-Ting Chen1, Kuan-Chia Lin1, Fang-Yi Tseng1, Wei-J Chen2, Chuan-Yu Chen3, 1National Yang-Ming University, Taipei, Taiwan, 2National Taiwan University, Taipei City, Taiwan, 3National Taiwan University, Taipei, Taiwan

1:45 Restrictive media parenting predicts alcohol-related attitudes and drinking onset in youth
Joy Gabrielli1, Mike Stoolmiller2, Zoe Brennan3, James Sargent3, 1Geisel School of Medicine/Norris Cotton Cancer Center, Enfield, NH, 2Michigan State University, Lansing, MI, 3Department of Biomedical Data Science at Dartmouth, Hanover, NH

2:00 Alcohol abuse, polydrug use, impulsivity and sensation among adolescents: Two year's follow-up
Víctor Martínez-Loredo1, Sergio Fernandez-Artamendi2, Aris Grande-Gonsende3, Ángel García-Pérez3, Irene Pericot-Valverde4, Jose Ramón Fernández-Hermida5, 1University of Oviedo, Addictive Behaviors Group, Oviedo, Spain, 2Universidad Internacional de Andalucía-Psychology, Andalucia, Spain, 3University of Oviedo, Oviedo, Spain, 4University of Vermont, Burlington, VT

2:15 Risk and protective factors for sexual risk behaviors in college students: Marijuana use, binge drinking, HIV risk knowledge and coping style
Angela Heads1, Joseph Dickson2, Joy Schmitz1, Aisha Asby3, 1University of Texas Health Science Center, Houston, TX, 2Prairie View A and M University, Prairie View, TX, 3Asby Consulting, Sacramento, CA

2:30 Sex differences in brain activation during response inhibition in heavy drinkers
Jessica Weafer1, Harriet de Wit1, 1University of Chicago, Chicago, IL

2:45 Effect of nicotine use on prospective memory performance and associated intrinsic functional brain connectivity in binge drinkers
Jonathan Ipser1, Dan Stein1, Hetta Gouse1, Carla Freeman1, John Joska1, 1University of Cape Town, Western Cape, South Africa

3:00 Changing alcohol related beliefs: Implications for successful treatment of alcohol use disorder
Jason Coates1, Matthew Gullo2, Gerald Feeney3, Ross Young3, Jason Connor3, 1Centre for Youth Substance Abuse Research, Herston, Queensland, Australia, 2University of Queensland, Brisbane, Austria, 3Princess Alexandra Hospital, Queensland, Australia
Oral Communications 30

LES LIAISONS DANGEREUSES: PSYCHIATRIC COMORBIDITY

Chairs: Jibran Khokhar and Suzette Glasner-Edwards

1:15  
Impaired brain reward circuitry may underlie alcohol drinking in a rat model of schizophrenia and co-occurring alcohol use disorder  
Jibran Khokhar¹, Alan Green¹, Hanbing Lu², Elliot Stein², ¹Dartmouth College, Hanover, NH, ²NIDA Intramural Research Program, Baltimore, MD

1:30  
Anxiety- and depression-like behaviors in rats selectively bred for intravenous cocaine self-administration  
Ken Grasing¹, Michael Grasing¹, Jessica Idowu¹, Haiyang Xu², ¹Kansas City VA Medical Center, Kansas City, MO, ²Florida State University, Tallahassee, FL

1:45  
Cigarette smoking and cognitive function in Chinese male inpatients with schizophrenia: A comparison of heavy and light smokers  
Huiqiong Deng¹, Jair Soares¹, Xiang Yang Zhang¹, ¹University of Texas Health Science Center, McGovern Medical School, Houston, TX

2:00  
The efficacy of valproate in cocaine-bipolar comorbidity: Results from a randomized placebo-controlled preliminary study  
Ihsan Salloum¹, Olga Maria Villar-Loubet¹, Feng Miao², Jack Cornelius³, ¹University of Miami, Miami, FL, ²University of Miami Miller School of Medicine, Miami, FL, ³University of Pittsburgh Medical Center, Pittsburgh, PA

2:15  
Improving comorbid substance use and posttraumatic stress disorder treatments through methodological innovation: Combined symptom trajectories following treatment  
Teresa Lopez-Castro¹, Nicholas Allan², Santiago Papini³, Sudie Back⁴, Therese Killeen⁴, Daniel Gros⁴, Emma Barrett⁴, Lesia M. Ruglass⁵, Denise Hien⁶, ¹The City College of New York, NY, ²Oregon Health and Science University, Hillsboro, OR, ³University of Texas at Austin, Austin, TX, ⁴Medical University of South Carolina, Charleston, SC, ⁵CUNY Graduate School of Public Health and Health Policy, New York, NY, ⁶Adelphi University, Garden City, NY

2:30  
Preliminary outcomes of a computerized CBT/MET intervention targeting depression and cannabis use in a psychiatric care setting  
Suzette Glasner-Edwards¹, Frances Kay-Lambkin², Alan Budney³, Helene Chokron Garneau⁴, Alexandra Venegas¹, Anne Lee¹, ¹Integrated Substance Abuse Programs (UCLA), Los Angeles, CA, ²University of Newcastle, New Castle, New South Wales, ³Geisel School of Medicine at Dartmouth, Hanover, NH, ⁴UCLA, Los Angeles, CA

2:45  
Suicide attempts and substance use disorders among veterans seeking specialty pain services  
Lisham Ashrafioun¹, Cathleen Kane¹, Todd Bishop¹, Peter Britton¹, Wilfred Pigeon¹, ¹VA VISN 2 Center of Excellence for Suicide Prevention, Canandaigua, NY
3:00  Mental disorders and persistent alcohol/tobacco use among adolescents in São Paulo, Brazil: A follow-up study
Mariel Mendez1, Silvia Martins2, Thiago Fidalgo3, Marcos Ribeiro3, Sheila C. Caetano3, Zila M. Sanchez3, 1Columbia University Mailman School of Public Health, Newark, NJ, 2Columbia University, New York, NY, 3Universidade Federal de Sao Paulo, São Paulo, Brazil

Symposium XIV

EVALUATING THE THERAPEUTIC POTENTIAL OF MEDICAL CANNABIS AND PHYTOCANNABINOIDS FROM PRECLINICAL ANIMAL MODELS TO THE PHARMACOEPIDEMIOLOGY OF MEDICAL CANNABIS USE

Chairs: Ziva Cooper and Igor Grant
1:15  Investigating variables that alter the analgesic effects and abuse liability of cannabis and cannabinoids under controlled conditions in the human laboratory
Z. Cooper, Columbia University and NYSPI, New York, NY
1:40  Evaluation of lesser known phytocannabinoids in preclinical animal models of drug abuse and pain
A. Lichtman, Virginia Commonwealth University, Richmond, VA
2:05  Going green: Exploring the impact of medical marijuana
S. Gruber, McLean Hospital, Harvard Medical School, Belmont, MA
2:30  Long-term studies of medical cannabis use: Real world evidence
M. Ware, McGill University, Montreal, Quebec, Canada
2:55  DISCUSSANT: The scientific basis for the therapeutic effects of medical cannabis: What we know and future considerations for research?
I. Grant, UCSan Diego, La Jolla, CA
Symposium XV

APPLICATIONS OF CHOICE PROCEDURES TO DRUG ABUSE RESEARCH

Chairs: S. Stevens Negus and Richard Lamb

1:15  *Modeling treatment by conceptualizing addiction as a behavioral allocation disorder*
      R. Lamb, University of Texas Health Science Center, San Antonio, TX

1:40  *The influence of social rank, sex and drug history on cocaine-food choice in monkeys*
      M. Nader, Wake Forest School of Medicine, Winston-Salem, NC

2:05  *Sex differences in the choice between cocaine and food reinforcers*
      A. Perry, University of Texas at El Paso, El Paso, TX

2:30  *The influence of alternative reinforcers and d-amphetamine maintenance on intravenous cocaine choice in parallel studies in humans and rhesus monkeys*
      J. Lile, University of Kentucky, Lexington, KY

2:55  *DISCUSSANT: Common themes and future directions in research with drug choice procedures*
      S. Negus, Virginia Commonwealth University, Richmond, VA

Oral Communications 31

IS IT A BEAUTIFUL DAY IN THE QUARTIER?
ENVIRONMENTAL INFLUENCES ON DRUG USE

Chairs: Natacha De Genna and Adam Milam

3:30   *All you need is love: Rearing environment predicts opioid self-administration and oxytocin expression*
       Rebecca Hofford¹, Dolores Vazquez-Sanroman¹, Michael Bardo¹, ¹University of Kentucky, Lexington, KY

3:45   *Environmental enrichment restores oxidative balance in animals exposed to toluene: Comparison with melatonin*
       Nayeli Paez-Martinez¹, Yepci Yee-Rios¹, Sergio Montes¹, ¹Instituto Politécnico Nacional, Mexico City, Mexico

4:00   *The effects of environmental enrichment during abstinence from cocaine on RNA expression within the nucleus accumbens*
       Gregory Powell¹, Madeleine St. Peter¹, Trisha Chaudhury¹, Daniela Alcazar¹, Thomas Benson¹, Ryan Bastle¹, Nora Perrone-Bizzozero², Janet Neisewander¹, ¹Arizona State University, Tempe, AZ, ²University of New Mexico, Albuquerque, New Mexico
4:15  Impact of environmental enrichment on context dependency of cocaine-cue extinction learning for relapse prevention
Jamie Gauthier1, Kyle Mabry1, Kathleen Kantak1, 1Boston University School of Medicine, Boston, MA

4:30  Childhood’s pro-alcohol environment and sensation seeking in relation to drinking problems in early adolescence and young adulthood
Nadia Wang1, Po-Hsiu Kuo1, Wei-J Chen2, Chuan-Yu Chen1, 1National Taiwan University, Epidemiology and Preventive Medicine, Taipei City, Taiwan, 2National Taiwan University, Taipei City, Taiwan

4:45  Brain dopamine response and modulatory effect of environmental context to morphine in healthy men
Primavera Spagnolo1, Alane kimes2, Melanie Sewhandt3, Karran Phillips4, Nancy Diazgranados5, Ehsan Shokri Kojori5, Kenzie Preston2, Dardo Tomasi3, Peter Herscovitch6, Markus Heilig7, Vijay Ramchandani3, 1NIH, NIAAA, Bethesda, MD, 2NIH, NIDA, Bethesda, MD, 3NIAAA, Bethesda, MD, 4NIDA, Bethesda, MD, 5NIDA Intramural Research Program, Baltimore, MD, 6NIH, PET, CC, Bethesda, MD, 7Linkoping University, Linköping, Sweden

5:00  The impact of environmental disorder on stress, craving, and mood
William Kowalczyk1, Matthew Matthew2, Karran Phillips3, Debra Furr-Holden4, Adam Milam5, Vahabzadeh Massoud2, Mustapha Mezghanni2, Jia-Ling Lin2, David Epstein2, Kenzie Preston2, 1NIH, Bethesda, MD, 2NIDA Intramural Research Program, Baltimore, MD, 3NIDA, Bethesda, MD, 4Michigan State University, Lansing, MI, 5Johns Hopkins University, Baltimore, MD

5:15  Neighborhood factors in co-use of cigarettes and cannabis among young adults
Natacha De Genna1, Dara Mendez2, Lidush Goldschmidt3, Nancy Day1, Marie Cornelius1, 1University of Pittsburgh, Pittsburgh, PA, 2University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA, 3University of Pittsburgh Medical Center, Pittsburgh, PA

Oral Communications 32

Fontaine H
3:30 - 5:30 PM

THE YOUNG AND THE RESTLESS: ADOLESCENTS

Chairs: Kristin Maple and Kenzie Preston

3:30  Associations between cannabis use, gender, and frontolimbic white matter integrity in adolescents and emerging adults
Kristin Maple1, Alicia Thomas1, Krista Lisdahl1, 1University of Wisconsin-Milwaukee, Milwaukee, WI

Lindsay Standeven1, Mishka Terplan2, Margaret Chisolm1, 1Johns Hopkins Hospital, Baltimore, MD, 2Virginia Commonwealth University, Richmond, VA, 3Johns Hopkins School of Medicine, Baltimore, MD
4:00  **Sex and age differences in risk factors of marijuana involvement during adolescence**  
Lian-Yu Chen¹, Silvia Martins², Eric Strain³, Ramin Mojtabai⁴, Carla Storr⁵,¹Taipei City Hospital, Taipei, Taiwan, ²Columbia University Mailman School of Public Health, Newark, NJ, ³Johns Hopkins University School of Medicine, Baltimore, MD, ⁴Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, MD, ⁵University of Maryland School of Nursing, Baltimore, MD

4:15  **Using timeline methodology to visualize qualitative treatment trajectories of youth enrolled in an RCT of extended-release naltrexone**  
Shannon Mitchell¹, Laura Monico¹, Elizabeth Lertch¹, Robert Schwartz¹, Jan Gryczynski¹, Kevin O’Grady², Marc Fishman³,¹Friends Research Institute, Baltimore, MD, ²University of Maryland-Psychology, College Park, MD, ³Mountain Manor Treatment Center, Emmitsburg, MD

4:30  **Time trend analysis of gender differences in the prevalence of deviant behavior, risk preference and marijuana use among adolescents from 2002 to 2014**  
Shadiya Moss¹, Silvia Martins¹, Katherine Keyes²,¹Columbia University, New York, NY, ²Columbia University Mailman School of Public Health, Newark, NJ

4:45  **A pilot randomized controlled trial of a technology-based substance use intervention for youth exiting foster care**  
Jordan Braciszewski¹, Golfo Tzilos², Roland Moore³, Robert Stout³,¹Henry Ford Health System, Detroit, MI, ²University of Michigan, Ann Arbor, MI, ³Pacific Institute for Research and Evaluation, Washington, DC

5:00  **Short-term effects of a smartphone application plus BMI in reducing substance use and sexual risk among homeless young adults: Results from a randomized controlled trial**  
Ronald Thompson¹, Deborah Hasin¹,¹Columbia University, New York, NY

5:15  **Physician screening and advice on adolescent substance use according to sexual orientation**  
Jeremy Luk¹, Stephen Gilman¹, Denise Haynie¹, Bruce Simons-Morton¹,¹National Institute of Child Health and Human Development, Bethesda, MD
DESIGNED FOR SUCCESS: IMPROVING CLINICAL TRIALS

Chairs: Margaret Wolff and Karen Hartwell

3:30  **Smart capsules are a promising tool to improve medication adherence in clinical trials**  
K. Hartwell, Medical University of South Carolina, Charleston, SC

3:45  **Reconsidering the removal of the legal problems criterion from DSM-V: Legal problems and substance use disorder severity in a nationally representative sample**  
Kelly Moore¹, Sherry McKee¹, ¹Yale School of Medicine, New Haven, CT

4:00  **Application of randomized response technique to the nationwide general population survey on drugs in the Republic of Georgia**  
Irma Kirtadze¹, David Otiashvili¹, Mzia Tabatadze¹, Irina Vardanashvili², Lela Sturua³, Tomas Zabransky⁴, James Anthony⁵, ¹Addiction Research Center, Tbilisi, GA, ²Ilia State University, Tbilisi, GA, ³National Center of Disease Control and Public Health, Tbilisi, GA, ⁴Real Escuela Superior de Arte Dramático, Madrid, Spain, ⁵Michigan State University, Lansing, MI

4:15  **Substance use disorder symptoms and HIV medication adherence**  
Margaret Wolff⁶, Aimee Campbell⁵, Susan Tross⁴, Laurel Weaver¹, Don Des Jarlais¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Columbia University and NYSPI, New York, NY, ³Columbia University, New York, NY

4:30  **Adherence across FDA-approved medications for alcohol use disorders in a VA population**  
James Walker¹, Jeffrey Korte¹, Aimee McRae-Clark¹, Karen Hartwell¹, ¹Medical University of South Carolina, Charleston, SC

4:45  **Study characteristics account for the majority of variance in clinical trials of medications for alcohol use disorders: A meta-analysis**  
Elias Klemperer¹, John Hughes², ¹Vermont Center on Behavior and Health, Burlington, VT, ²University of Vermont, Burlington, VT

5:00  **Development, feasibility, and implementation of the misuse, abuse, and diversion drug event reporting system (MADDERS®) for classifying misuse and abuse-related events in clinical trials**  
Roi Treister¹, Ryan Lanier¹, Imrana Kazam¹, Nathalie Erpelding¹, Harrison Elder¹, Maitreyee Mohanty¹, Dolapo Lawal¹, Judith Jones², Nathaniel Katz³, ¹Analgesic Solutions, Natick, MA, ²The Degge Group, Ltd.

5:15  **Retention and drug use among treatment-resistant patients transferred to a ‘Second Chance’ methadone maintenance treatment program**  
Emytis Tavakoli¹, Emily Deal², Gary Rhodes³, Edward Mischel³, Carl Christensen³, Aliareza Amirsadri³, Mark Greenwald³, ¹Wayne State University, Alborz University of Medical Sciences, Montreal, Quebec, Canada, ²Kalamazoo College, Kalamazoo, MI, ³Wayne State University, Detroit, MI
Thursday, June 22, 2017

Symposium XVI

SYNTHETIC CANNABINOIDS: THINKING OUTSIDE OF THE POT

Chairs: Jenny Wiley and Brian Thomas

3:30  *The epidemiology of synthetic cannabinoids: It’s frustrating and confusing*
     J. Maxwell, University of Texas at Austin, Salisbury, NC

3:55  *Synthetic cannabinoids and spice – A real-life chemical exposure potpourri*
     B. Thomas, RTI International, Research Triangle Park, NC

4:20  *Role of biotransformation in the pharmacological and toxicological effects of synthetic cannabinoids*
     B. Fantegrossi, University of Arkansas for Medical Sciences, Little Rock, AR

4:45  *Journey to the dark side and back: From super agonists to antagonists*
     J. Wiley, RTI International, Research Triangle Park, NC

5:10  *DISCUSSANT: Translational implications: A “street-level” view*
     J. Trecki, Drug Enforcement Administration (DEA), Springfield, VA

SWEEPSTAKES DRAWING

YOU MUST BE SEATED IN ONE OF THE SESSIONS STARTING AT 1:15 PM IN ORDER TO HAVE YOUR BADGE COLLECTED

HAVE A SAFE TRIP HOME!
SEE YOU IN SAN DIEGO, CALIFORNIA
JUNE 9 – 14, 2018
<table>
<thead>
<tr>
<th>Author Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abatemarco, D</td>
<td>12</td>
</tr>
<tr>
<td>Abbinanti, K</td>
<td>11</td>
</tr>
<tr>
<td>Abdolahi, A</td>
<td>15</td>
</tr>
<tr>
<td>Abrams, C</td>
<td>111</td>
</tr>
<tr>
<td>Accornero, V H</td>
<td>104</td>
</tr>
<tr>
<td>Ackerman, S C</td>
<td>99</td>
</tr>
<tr>
<td>Acri, J B</td>
<td>21, 22</td>
</tr>
<tr>
<td>Adams, J</td>
<td>68</td>
</tr>
<tr>
<td>Adelson, M</td>
<td>23, 102</td>
</tr>
<tr>
<td>Ades, P</td>
<td>79, 84</td>
</tr>
<tr>
<td>Adinoff, B H</td>
<td>110</td>
</tr>
<tr>
<td>Adler, A</td>
<td>83</td>
</tr>
<tr>
<td>Adler, M W</td>
<td>80</td>
</tr>
<tr>
<td>Afifi, R</td>
<td>30</td>
</tr>
<tr>
<td>Agbese, E</td>
<td>19</td>
</tr>
<tr>
<td>Aiello, G</td>
<td>22</td>
</tr>
<tr>
<td>Akbarali, H</td>
<td>3</td>
</tr>
<tr>
<td>Al-Tayyib, A</td>
<td>110</td>
</tr>
<tr>
<td>Alanis-Hirsch, K</td>
<td>54</td>
</tr>
<tr>
<td>Alcazar, D</td>
<td>123</td>
</tr>
<tr>
<td>Alcover, K</td>
<td>24</td>
</tr>
<tr>
<td>Alexandre, J</td>
<td>86</td>
</tr>
<tr>
<td>Ali, R</td>
<td>55, 57, 110</td>
</tr>
<tr>
<td>Alice, F</td>
<td>69, 99</td>
</tr>
<tr>
<td>Aliev, F</td>
<td>72</td>
</tr>
<tr>
<td>Allain, F</td>
<td>59, 67</td>
</tr>
<tr>
<td>Allan, N</td>
<td>121</td>
</tr>
<tr>
<td>Allard, D</td>
<td>98</td>
</tr>
<tr>
<td>Allen, I</td>
<td>102</td>
</tr>
<tr>
<td>Allen, S</td>
<td>63</td>
</tr>
<tr>
<td>Alshaarawy, O</td>
<td>107</td>
</tr>
<tr>
<td>Altmann, L</td>
<td>29</td>
</tr>
<tr>
<td>Altshuler, R</td>
<td>95</td>
</tr>
<tr>
<td>Alving, C</td>
<td>93</td>
</tr>
<tr>
<td>Amaral, R</td>
<td>15</td>
</tr>
<tr>
<td>Amaro, H</td>
<td>3</td>
</tr>
<tr>
<td>Amirsadri, A</td>
<td>126</td>
</tr>
<tr>
<td>Amr, S</td>
<td>68</td>
</tr>
<tr>
<td>Anastasio, N C</td>
<td>6, 16, 72, 100, 118</td>
</tr>
<tr>
<td>Andersen, M</td>
<td>59</td>
</tr>
<tr>
<td>Andersen, S</td>
<td>68</td>
</tr>
<tr>
<td>Anderson, L</td>
<td>61</td>
</tr>
<tr>
<td>Anderson Goodell, E</td>
<td>80</td>
</tr>
<tr>
<td>Andrade, A</td>
<td>15, 79</td>
</tr>
<tr>
<td>Andrade, L</td>
<td>79</td>
</tr>
<tr>
<td>Andre, M</td>
<td>87</td>
</tr>
<tr>
<td>Andrew, S</td>
<td>112</td>
</tr>
<tr>
<td>Andrews, A M</td>
<td>60</td>
</tr>
<tr>
<td>Anouti, S</td>
<td>30</td>
</tr>
<tr>
<td>Ansari, M</td>
<td>113</td>
</tr>
<tr>
<td>Ansell, E</td>
<td>85</td>
</tr>
<tr>
<td>Anthony, E</td>
<td>3</td>
</tr>
<tr>
<td>Anthony, J C</td>
<td>15, 20, 24, 56, 59, 79, 85, 104, 107, 126</td>
</tr>
<tr>
<td>Antoine, D</td>
<td>6, 103</td>
</tr>
<tr>
<td>Antoline, J</td>
<td>93</td>
</tr>
<tr>
<td>Apata, J</td>
<td>113</td>
</tr>
<tr>
<td>Appel, N</td>
<td>22</td>
</tr>
<tr>
<td>Areesantichai, C</td>
<td>87</td>
</tr>
<tr>
<td>Arfken, C L</td>
<td>21, 116</td>
</tr>
<tr>
<td>Arger, C A</td>
<td>83, 117</td>
</tr>
<tr>
<td>Armstrong, W</td>
<td>111</td>
</tr>
<tr>
<td>Aronowitz, C</td>
<td>88</td>
</tr>
<tr>
<td>Arsonon, I</td>
<td>64, 92</td>
</tr>
<tr>
<td>Arria, A</td>
<td>85</td>
</tr>
<tr>
<td>Arroyo-Curras, N</td>
<td>117</td>
</tr>
<tr>
<td>Arterberry, B</td>
<td>106</td>
</tr>
<tr>
<td>Asby, A</td>
<td>120</td>
</tr>
<tr>
<td>Ashford, K</td>
<td>84</td>
</tr>
<tr>
<td>Ashrafiou, L</td>
<td>121</td>
</tr>
<tr>
<td>Assuncao, V</td>
<td>102</td>
</tr>
<tr>
<td>Aston, E</td>
<td>63, 108</td>
</tr>
<tr>
<td>Ataiants, J</td>
<td>86</td>
</tr>
<tr>
<td>Athamneh, L</td>
<td>53</td>
</tr>
<tr>
<td>Auriacombe, M</td>
<td>23, 54, 63, 64, 65, 86</td>
</tr>
<tr>
<td>Auriacombe, S</td>
<td>65</td>
</tr>
<tr>
<td>Austin, B</td>
<td>78</td>
</tr>
<tr>
<td>Auty, S</td>
<td>82, 87</td>
</tr>
<tr>
<td>Aya, A</td>
<td>78</td>
</tr>
<tr>
<td>Azar, M</td>
<td>69, 99</td>
</tr>
<tr>
<td>Azzouz, N</td>
<td>78</td>
</tr>
<tr>
<td>Babalonis, S</td>
<td>4, 6</td>
</tr>
<tr>
<td>Babson, K</td>
<td>20, 108</td>
</tr>
<tr>
<td>Back, S E</td>
<td>112, 121</td>
</tr>
<tr>
<td>Badger, G</td>
<td>21</td>
</tr>
<tr>
<td>Badiani, A</td>
<td>74</td>
</tr>
<tr>
<td>Bagley, S</td>
<td>23, 87</td>
</tr>
<tr>
<td>Baig, A</td>
<td>81</td>
</tr>
<tr>
<td>Bailey, G</td>
<td>29</td>
</tr>
<tr>
<td>Bailey, S</td>
<td>107</td>
</tr>
<tr>
<td>Baker, A</td>
<td>92</td>
</tr>
<tr>
<td>Baker, L</td>
<td>100, 101</td>
</tr>
<tr>
<td>Baker, N</td>
<td>29, 58, 81, 100</td>
</tr>
<tr>
<td>Ball, W</td>
<td>59</td>
</tr>
<tr>
<td>Ball, Jr., W</td>
<td>58</td>
</tr>
<tr>
<td>Balodis, I</td>
<td>85</td>
</tr>
<tr>
<td>Balter, R</td>
<td>115</td>
</tr>
<tr>
<td>Bandstra, E</td>
<td>104</td>
</tr>
<tr>
<td>Bania, T</td>
<td>64, 92</td>
</tr>
<tr>
<td>Banks, M L</td>
<td>93, 95</td>
</tr>
<tr>
<td>Barbosa-Leiker, C</td>
<td>22</td>
</tr>
<tr>
<td>Barbour, R</td>
<td>69, 99</td>
</tr>
<tr>
<td>Bardin, A</td>
<td>69</td>
</tr>
<tr>
<td>Bardo, M T</td>
<td>28, 115, 123</td>
</tr>
<tr>
<td>Bares, C B</td>
<td>17, 51, 72</td>
</tr>
<tr>
<td>Barkas, C</td>
<td>68</td>
</tr>
<tr>
<td>Barnert, E</td>
<td>23</td>
</tr>
<tr>
<td>Barondess, D A</td>
<td>79</td>
</tr>
<tr>
<td>Barratt, M</td>
<td>96</td>
</tr>
<tr>
<td>Barret, O</td>
<td>59</td>
</tr>
<tr>
<td>Barrett, E</td>
<td>121</td>
</tr>
<tr>
<td>Barrett, F S</td>
<td>101</td>
</tr>
<tr>
<td>Barrington-Trimis, J</td>
<td>53</td>
</tr>
<tr>
<td>Barron, L</td>
<td>60</td>
</tr>
<tr>
<td>Barry, D T</td>
<td>22, 19, 111</td>
</tr>
<tr>
<td>Barry, K</td>
<td>110</td>
</tr>
<tr>
<td>Bart, G</td>
<td>8</td>
</tr>
<tr>
<td>Bartels, K</td>
<td>116</td>
</tr>
<tr>
<td>Barth, K</td>
<td>73</td>
</tr>
<tr>
<td>Bartlem, K</td>
<td>65</td>
</tr>
<tr>
<td>Baruffaldi, F</td>
<td>17, 18</td>
</tr>
<tr>
<td>Baskin, B</td>
<td>72</td>
</tr>
<tr>
<td>Bassett, S</td>
<td>108</td>
</tr>
<tr>
<td>Bassir Nia, A</td>
<td>21</td>
</tr>
<tr>
<td>Bastian, L</td>
<td>112</td>
</tr>
<tr>
<td>Bastle, R</td>
<td>123</td>
</tr>
<tr>
<td>Bates, M</td>
<td>78</td>
</tr>
<tr>
<td>Bath, E</td>
<td>23</td>
</tr>
<tr>
<td>Batki, S L</td>
<td>20</td>
</tr>
<tr>
<td>Battisti, U</td>
<td>100</td>
</tr>
<tr>
<td>Buu, A</td>
<td>106</td>
</tr>
<tr>
<td>Byrne, E</td>
<td>22</td>
</tr>
<tr>
<td>Byrne, E</td>
<td>5</td>
</tr>
<tr>
<td>Caceda, R</td>
<td>29</td>
</tr>
<tr>
<td>Caetano, S</td>
<td>122</td>
</tr>
<tr>
<td>Calabrese, J</td>
<td>15</td>
</tr>
<tr>
<td>Calabroni, S</td>
<td>30</td>
</tr>
<tr>
<td>Cala, R</td>
<td>111</td>
</tr>
<tr>
<td>Calcar, N</td>
<td>22</td>
</tr>
<tr>
<td>Calvo, J</td>
<td>98</td>
</tr>
<tr>
<td>Camba, I</td>
<td>95</td>
</tr>
<tr>
<td>Camagna, B</td>
<td>84</td>
</tr>
<tr>
<td>Camenga, D</td>
<td>84</td>
</tr>
<tr>
<td>Campbell, A</td>
<td>2, 76, 103, 104, 126</td>
</tr>
<tr>
<td>Campbell, G</td>
<td>111</td>
</tr>
<tr>
<td>Campbell, V</td>
<td>16</td>
</tr>
<tr>
<td>Campillo, T</td>
<td>66</td>
</tr>
<tr>
<td>Campillo, O</td>
<td>17</td>
</tr>
<tr>
<td>Cannella, L</td>
<td>60</td>
</tr>
<tr>
<td>Cao, Y</td>
<td>100</td>
</tr>
<tr>
<td>Carbonaro, T</td>
<td>101</td>
</tr>
<tr>
<td>Carliner, H</td>
<td>88</td>
</tr>
<tr>
<td>Carlson, C</td>
<td>11</td>
</tr>
<tr>
<td>Carlson, R</td>
<td>103, 110</td>
</tr>
<tr>
<td>Carnahan, C</td>
<td>73</td>
</tr>
<tr>
<td>Carney, B</td>
<td>23</td>
</tr>
<tr>
<td>Carney, T</td>
<td>56</td>
</tr>
<tr>
<td>Carpenter, C</td>
<td>95</td>
</tr>
<tr>
<td>Carrico, A</td>
<td>9, 63</td>
</tr>
<tr>
<td>Carrieri, P</td>
<td>18, 63</td>
</tr>
<tr>
<td>Carroll, F</td>
<td>17, 18</td>
</tr>
<tr>
<td>Carroll, K</td>
<td>85</td>
</tr>
<tr>
<td>Carroll, M</td>
<td>31, 118</td>
</tr>
<tr>
<td>Carroll, V</td>
<td>59</td>
</tr>
<tr>
<td>Carson, R</td>
<td>59</td>
</tr>
<tr>
<td>Carter, P</td>
<td>55, 106</td>
</tr>
<tr>
<td>Casimir, A</td>
<td>68</td>
</tr>
<tr>
<td>Castaldelli-Maia, J</td>
<td>79</td>
</tr>
<tr>
<td>Castellanos Ryan, N</td>
<td>98</td>
</tr>
<tr>
<td>Catalano, R</td>
<td>119</td>
</tr>
<tr>
<td>Caudarella, A</td>
<td>55</td>
</tr>
<tr>
<td>Cavallo, D</td>
<td>84</td>
</tr>
<tr>
<td>Cepeda-Benita, A</td>
<td>13</td>
</tr>
<tr>
<td>Cerda, M</td>
<td>82, 88</td>
</tr>
<tr>
<td>Cesar, C</td>
<td>65</td>
</tr>
<tr>
<td>Cespedes, I</td>
<td>17</td>
</tr>
<tr>
<td>Cha, H</td>
<td>101</td>
</tr>
<tr>
<td>Chaarani, B</td>
<td>15, 78</td>
</tr>
<tr>
<td>Chacho, N</td>
<td>14</td>
</tr>
<tr>
<td>Chaison, C</td>
<td>64</td>
</tr>
<tr>
<td>Chalak, A</td>
<td>30</td>
</tr>
<tr>
<td>Challagolla, D</td>
<td>11</td>
</tr>
<tr>
<td>Chambers, C</td>
<td>74</td>
</tr>
<tr>
<td>Champion, K</td>
<td>98</td>
</tr>
<tr>
<td>Chan, G</td>
<td>119, 96</td>
</tr>
<tr>
<td>Chandra, M</td>
<td>15</td>
</tr>
<tr>
<td>Chandran, N</td>
<td>90</td>
</tr>
<tr>
<td>Chang, C</td>
<td>88</td>
</tr>
<tr>
<td>Chang, S</td>
<td>116</td>
</tr>
<tr>
<td>Chao, T</td>
<td>29</td>
</tr>
<tr>
<td>Chaplin, T</td>
<td>85</td>
</tr>
<tr>
<td>Charlson, F</td>
<td>54, 56</td>
</tr>
<tr>
<td>Chartier, K</td>
<td>72</td>
</tr>
<tr>
<td>Chartoff, E</td>
<td>68</td>
</tr>
<tr>
<td>Chaudhury, T</td>
<td>123</td>
</tr>
<tr>
<td>Chavera, T</td>
<td>114</td>
</tr>
<tr>
<td>Chawarski, M</td>
<td>87</td>
</tr>
<tr>
<td>Cheattle, M D</td>
<td>70</td>
</tr>
<tr>
<td>Cheer, J</td>
<td>119</td>
</tr>
<tr>
<td>Chen, C</td>
<td>116, 120</td>
</tr>
<tr>
<td>Chen, D</td>
<td>18</td>
</tr>
<tr>
<td>Chen, I</td>
<td>102</td>
</tr>
<tr>
<td>Chen, L</td>
<td>125</td>
</tr>
<tr>
<td>Chen, L</td>
<td>88</td>
</tr>
<tr>
<td>Chen, W</td>
<td>120</td>
</tr>
<tr>
<td>Chen, W</td>
<td>84, 120, 124, 106</td>
</tr>
<tr>
<td>Chen, X</td>
<td>80</td>
</tr>
<tr>
<td>Chen, X</td>
<td>63</td>
</tr>
<tr>
<td>Chenv, Y</td>
<td>84</td>
</tr>
<tr>
<td>Cheng, C</td>
<td>54</td>
</tr>
<tr>
<td>Cheng, D</td>
<td>18, 64, 111</td>
</tr>
<tr>
<td>Cheng, H</td>
<td>85, 59, 75</td>
</tr>
<tr>
<td>Chhatre, S</td>
<td>65</td>
</tr>
<tr>
<td>Chilcoat, H</td>
<td>18</td>
</tr>
<tr>
<td>Childress, A</td>
<td>15, 67, 97</td>
</tr>
<tr>
<td>Chisolm, M</td>
<td>71, 124</td>
</tr>
<tr>
<td>Chiu, A</td>
<td>67</td>
</tr>
<tr>
<td>Cho, J</td>
<td>86</td>
</tr>
<tr>
<td>Choi, C</td>
<td>107</td>
</tr>
<tr>
<td>Choi, M</td>
<td>100</td>
</tr>
<tr>
<td>Chokron Garneau, H</td>
<td>121</td>
</tr>
<tr>
<td>Christians, C</td>
<td>126</td>
</tr>
<tr>
<td>Christians, S</td>
<td>14</td>
</tr>
<tr>
<td>Christine, P</td>
<td>56</td>
</tr>
<tr>
<td>Chung, Y</td>
<td>55</td>
</tr>
<tr>
<td>Cibiel-Heintz, C</td>
<td>54</td>
</tr>
<tr>
<td>Cicler, J</td>
<td>29</td>
</tr>
<tr>
<td>Claborn, K</td>
<td>63</td>
</tr>
<tr>
<td>Clark, H</td>
<td>8</td>
</tr>
<tr>
<td>Clark, N</td>
<td>22</td>
</tr>
<tr>
<td>Clarke, W</td>
<td>114</td>
</tr>
<tr>
<td>Cleveland, H</td>
<td>111</td>
</tr>
<tr>
<td>Cleveland, M</td>
<td>111</td>
</tr>
<tr>
<td>Coates, J</td>
<td>120</td>
</tr>
<tr>
<td>Cochran, G</td>
<td>88</td>
</tr>
<tr>
<td>Coe, M</td>
<td>117</td>
</tr>
<tr>
<td>Coffey, A</td>
<td>18</td>
</tr>
<tr>
<td>Coffin, P</td>
<td>15, 87</td>
</tr>
<tr>
<td>Cohen, C</td>
<td>58, 59</td>
</tr>
<tr>
<td>Cohen, D</td>
<td>111</td>
</tr>
<tr>
<td>Cohen, G</td>
<td>15</td>
</tr>
<tr>
<td>Cohen, R</td>
<td>63</td>
</tr>
<tr>
<td>Cohn, J</td>
<td>21</td>
</tr>
<tr>
<td>Coker, J</td>
<td>5, 11</td>
</tr>
<tr>
<td>Colasanti, J</td>
<td>64, 111</td>
</tr>
<tr>
<td>Cole, E</td>
<td>88</td>
</tr>
<tr>
<td>Cole, M</td>
<td>80</td>
</tr>
<tr>
<td>Cole, R</td>
<td>99</td>
</tr>
<tr>
<td>Coleman-Cowger, V H</td>
<td>23</td>
</tr>
<tr>
<td>Collier, K</td>
<td>105</td>
</tr>
<tr>
<td>Collins, G</td>
<td>3, 115</td>
</tr>
<tr>
<td>Collins, L</td>
<td>75</td>
</tr>
<tr>
<td>Colpe, L</td>
<td>19</td>
</tr>
<tr>
<td>Colucci, S</td>
<td>58</td>
</tr>
<tr>
<td>Comer, S</td>
<td>6, 28, 71, 73, 86, 87, 97, 115, 117</td>
</tr>
<tr>
<td>Comfort, M</td>
<td>106</td>
</tr>
<tr>
<td>Compton, P</td>
<td>70</td>
</tr>
<tr>
<td>Cone, E</td>
<td>81</td>
</tr>
<tr>
<td>Connelly, K</td>
<td>101</td>
</tr>
<tr>
<td>Conner, K</td>
<td>110</td>
</tr>
<tr>
<td>Connor, J</td>
<td>61, 72, 119, 120</td>
</tr>
<tr>
<td>Conroy, D</td>
<td>4</td>
</tr>
<tr>
<td>Constantinescu, C</td>
<td>59</td>
</tr>
<tr>
<td>Contet, C</td>
<td>6</td>
</tr>
<tr>
<td>Conti, A</td>
<td>91</td>
</tr>
<tr>
<td>Cook, J</td>
<td>57</td>
</tr>
<tr>
<td>Cook, M</td>
<td>23</td>
</tr>
<tr>
<td>Cook, R</td>
<td>64</td>
</tr>
<tr>
<td>Cook, R</td>
<td>63</td>
</tr>
<tr>
<td>Cook-Sather, S</td>
<td>72</td>
</tr>
</tbody>
</table>
Ingraham, B  62
Ipsen, J  15 , 16 , 120
Irish, S  17
Ivanciu, A  15 , 78
Jack, G  82
Jackman, K P  113
Jackson, K  27
Jackson, M  11
Jacobson, A E  93
Jaffe, J H  19
Jagannathan, K  15 , 67 , 97
Jain, R  93
Jain, S  63
Jlah, R  93
James, G  29
Janda, K  13, 93
Janes, A C  14 , 67, 114
Janganati, V  28
Jankowski, S  21
Jannuzzi Cunha, P J  15
Jardin, C  7
Jarvis, B  16, 65
Jauffret-Roustide, M  63
Javadi-Peydar, M  80
Jaworski, N  98
Jennette, K  79, 108
Jensen, C  14 , 67, 114
Jennette, K  79, 108
Jensen, J  14
Jensen, K  72
Jessel, L  111, 96
Jhanjee, S  90
Jin, C  58
Johnson, A  55
Johnson, A  95
Johnson, H  118
Johnson, J  53, 107
Johnson, K  28
Johnson, L  3
Johnson, M W  73, 101 , 108
Johnson, P  82
Johnson, R  53, 85, 104, 107
Johnson, S  114
Johnston, L D  82
Jones, A  53, 62, 106
Jones, D  63
Jones, J  6, 28, 73, 86, 87, 97, 117
Jones, J  11 , 13
Jones, J  126
Jones, M  11
Jordaan, E  13
Jordan, A  2
Jordan, C J  68
Joseph, V  24
Joska, J  20 , 120
Juhascik, M  110
Jules, N  15
Juliano, L  15
Jurkowitz, C  62
Justice, A  73
Jutkiewicz, E  3 , 95
Kahn, L  30
Kallupi, M  60
Kalnik, M  13
Kaminer, Y  61
Kampman, K M  15, 97
Kanabar, M  23
Kane, C  121
Kane, J  62
Kangas, B  97
Kangiser, M  79
Kannry, J  55
Kantar, K M  72 , 124
Karakula, S  111
Karaoghlian, N  117
Karne, S  91
Karriker-Jaffe, K  72
Kase, M  95
Kashino, W  22
Kasper, J M  60
Kataoka , S  29
Katz, N  10 , 81 , 126
Kaufman, M J  97 , 17
Kaukeinen, K  110
Kay-Lambkin, F  23, 92, 121
Kazam, I  81, 126
Kearney-Ramos, T  114
Keedy, S  95
Keith, D  13, 83
Kelley, D  88
Kelly, A  96, 119
Kelly, T H  84
Kelsch, D  117 , 6
Kenakin, T  58
Kendzor, D  83
Kennedy, T  54
Kerr, T  63 , 30 , 69
Kershaw, T  103, 25
Kervran, C  63
Kessler, F  102 , 106 , 118
Keutmann, M  79
Keyes, K  15 , 96, 125
Keyes, K  82
Keyes, K  88
Keyser-Marcus, L  78
Khalili, M  102
Khan, M  29, 105
Khan, S R  82
Khatib, D  15, 91
Kheibari, A  88
Khoddam, R  86
Khokhar, J  121
Khor, K  112
Kiguchi, N  111
Killeen, T  29, 121
Kilts, C  29
Kilwein, T  16, 55, 96
Kim, D  96
Kim, H  101
Kim, H  18
Kim, J  17, 99
Kim, J  67
Kim, M  114
Kim, S  29 , 117
Kim, S  92
Kim, T  22
Kim, Y  101
Kimani, R  118
Kim, A  124
Kim, J  7 , 62
King, M  19
Kingsland, M  65
Kinzler, A  20
Kippin, T  67, 68, 72 , 117
Kiriazova, T  26
Kirisci, L  85
Kirley, T  59
Kirtadze, I  96 , 126
Kirley, T  59
Kirtadze, I  96 , 126
Kishioka, S  111
Kittleson, S  16
Kivell, B M  5
Klawitter, J  17
Klein, E  84
Klein, M  88, 88
Klemperer, E  126
Kletter, E  102
Kleykamp, B A  88
Klimas, J  63
Matzeu, A  60
Mauro, C  19, 21, 24, 88
Mauro, P  65
Mauro, P  88
Mauro, P  19, 88
Maust, D  56
Mavrikaki, M  68
Maxwell, J C
May, A  102
May, D  101
May, J  19
May, K  109
May, P A  74, 99
Mayberry, H  117
Mayer, M  53
Mayes, L  11
Maynard, M  60
Mayo, L  95
Mazid, S  72
Mazzella, S  22
McCabe, S E  79, 84, 109
McCabe, V  84
McCaffrey, S  7, 56
McCann, D J  71
McCarthy, J  67
McCarty, D  54, 55, 107
McClure, E  58
McConnell, R  53
McCormick, R  110
McCubbin, A  84
McCue, D  60
McCusitan, C  66
McCurdy, C  6
McDonald, R  22, 65, 118
McDonald, R  69
McDonald, S  54
McDonell, M  21, 54
McEwen, B  72
McGaugh, J  15
McGowan, C  65
McGuinness, P  56
McHugh, R  24, 73, 102, 111
McKay, J R  61
McKee, S  14, 15, 31, 61, 67, 68, 80, 126
McKelvey, K  92
McLaughlin, J P  17
McLaughlin, R J  94
McLaurin, K  25
McLeman, B  87
McLendon, H  6
McMahan, R  113
McMahan, T J  72
McNamee, C  109
McNeely, J  7, 55
McNeil, J  118
McNulty, E  6
McPherson, S  15, 21, 54
McQuaid, R  54
McRae-Clark, A L  81, 126, 100
McReynolds, J  101
McWilliams, S  86, 107, 116
Meacham, M  53
Meade, C  9, 25, 63
Meier, A  87
Meinhofer, A  108
Meissler, J  80
Melara, R  81
Melbostad, H  11, 12
Meli, S  64
Mellis, A  97
Meltzer, P C  96
Mendez, D  124
Mendez, M  122
Menoyo, E  104
Meredith, S  15
Merkel, S  60
Merlin, J  70
Mesmin, M  3
Messiah, S  62
Metcalf, S  87
Metrik, J  108
Metsch, L  25
Metz, V E  28
Metzger, D  64
Metzger, D  65
Miao, F  121
Michopoulos, V  114
Micoulaud-Franchi, J  23
Miche, R  82
Mikulich-Gilbertson, S K  10, 78, 86, 116
Milam, A  107, 124
Milani, S  82, 109, 116
Millar, B  61, 105
Miller, E  105
Miller, J  55
Miller, K  23
Miller, M  79
Miller, W G  85
Miller-Koenig, B  66
Milligan, P  20
Milloy, M  69
Milloy, M  63
Mills, K  23
Milner, T  72
Min, J  88
Minichillo, A  65
Minoqianis, E  16
Mintzopoulos, D  17, 97
Mischel, E  126
Miszkiel, J  100
Mitchell, J  62
Mitchell, J  54, 81
Mitchell, S G  19, 55, 125
Mo, L  28
Moeller, F  72, 78
Moen Eilertsen, E  120
Moerke, M  93
Mogali, S  73, 28
Mohammed, A M  59
Mohanty, M  126, 81, 81
Mohl, B  14
Mojtahai, R  125
Molina, B  54
Monezi Andrade, A  61, 62
Monge, Z  15, 97
Monteico, L B  19, 125
Montalvo-Ortiz, J  72
Montaner, J  63
Montes, S  123
Montgomery, L  76
Monthioux, E  65
Moody, L  14
Moore, B A  19, 92
Moore, B  103
Moore, K  126
Moore, P  15
Moore, R  125
Moore, S  87
Moore, T  111
Mora, M  18
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morabito, D</td>
<td>20</td>
</tr>
<tr>
<td>Moran, L</td>
<td>102</td>
</tr>
<tr>
<td>Morean, M</td>
<td>84</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morrill, T</td>
<td>88</td>
</tr>
<tr>
<td>Morris, J</td>
<td>18, 64</td>
</tr>
<tr>
<td>Morris, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriseau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
<tr>
<td>Morie, K</td>
<td>11</td>
</tr>
<tr>
<td>Morisano, D</td>
<td>24</td>
</tr>
<tr>
<td>Morel, S</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, J</td>
<td>18</td>
</tr>
<tr>
<td>Morgan, P</td>
<td>4</td>
</tr>
<tr>
<td>Moriceau, S</td>
<td>23</td>
</tr>
</tbody>
</table>
Park, J 63
Parker, M 20, 24, 96
Paronis, C 80
Parra-Cardona, J R 20
Parry, C 13, 56
Pars, J T 61, 105
Pasa, G 104
Pascual Arce, B 66
Patel, S 119
Pater, H 67
Pating, D 23
Paton, K 5
Patrick, M 82
Patrick, M 83
Patterson, A 14, 61, 60
Patton, K 61, 119
Paul, D 11
Paule, M 113
Paulus, M 26, 102
Pavlíčková, M 104
Pavlíčková, M 19, 107
Peacock, A 57, 110
Pearson, J 19
Pease, A 59
Peccoraro, L 55
Pechansky, F 102, 104, 106, 118
Pecoraro, A 62
Pecskó, J 11
Peglow, S 30
Peiper, N 108
Peiper, N 109
Peles, E 23, 102
Pelletier, M R 68
Pennington, D 20
Penet, P R 13, 17, 18
Pereira de Oliveira Junior, H 15
Pérez, M 104
Pere Díaz, M 6
Pérez Mañá, C 104
Pericot, I 21, 79, 86, 120
Perkel, C 21
Perlmutter, A 19
Perrine, S 91, 99, 101
Perrone-Bizzozero, N 123
Perry, A N 123
Perry, S 116
Persidsky, Y 80
Persons, A 95
Pesquero, J 17
Peteet, B 66
Peters, C 83
Peters, E 84
Peters, E N 82, 109
Petersen, N 67, 114
Petersen, P 13, 20
Peterson, S 17, 18
Petrusky, O 14
Philp, P 23
Phillips, J 13
Phillips, K A 102, 124
Philogene, H 28
Phung, Q 61
Pickworth, W B 83
Pigeon, W 121
Pihl, R O 98
Pike, E 16
Pilkey, D 103
Pincus, M 114
Pinguello, A 102
Pittman, J 14
Pitts, E 60
Plante, C 63
Platt, D M 95
Platt, J 83
Plaxco, K 117
Plunk, A 108
Pocuca, N 61
Podolsky, M 111
Poe, L 14
Polak, K 85
Pollini, R A 103, 116
Pomm, D 85
Ponce Terashima, J P 107
Poole, S 26
Poon, J 85
Pope, D 53
Porath, A 107, 54
Porrino, L J 79
Potenza, M 11, 85
Potts, J 83
Pouget, E 19
Powell, G L 123
Poznyak, V 22
Prashad, N 14
Pratt, M 93
Pravetoni, M 18, 17
Preegegast, M 115
Presley, B 95
Preston, K L 18, 102, 124
Price, A 6, 118
Price, C 54
Price, T 72
Priest, J 83
Printz, D 19, 92, 103
Prisinzano, T E 5, 58, 114
Psederska, E 118
Pugh, M 73
Pujadas, M 104
Purpura, M 68
Puzia, M 54
Quinn, A 55
Quinn, C 61
Quinn, E 18, 64
Quinn, G 84
Quinn, K 105
Quintero-Lopez, C 85
Quisenberry, A 53, 84
Qureshi, H 6
Rabinovich-Guilatt, L 58
Radman, M 78
Radoncic, V 29
Rafful, C 63
Raghav, R 93
Ragui, G 64
Raina, C 54
Raines, A 7
Raleigh, M 17, 18
Ralph, A 66
Ramachandani, V 124
Ramesh, D 115
Ramirez, S 60
Ramo, D E 25, 53, 75, 83, 92
Ramos Lopez, O 17
Ramsey, S 63
Randesi, M 72
Rao, H 67
Rash, C 83
Rassis, C 86
Rawls, S M 28, 60, 80
Rawson, R A 88
Ray, S 78
Ray-Griffith, S 11
Rayapati, A 115
Raymond, K 17, 86
Razmpour, R 60
<table>
<thead>
<tr>
<th>Author</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unterwald, E M</td>
<td>101</td>
</tr>
<tr>
<td>Upchurch, D</td>
<td>20</td>
</tr>
<tr>
<td>Urbanik, L</td>
<td>60</td>
</tr>
<tr>
<td>Urbiel, J</td>
<td>116</td>
</tr>
<tr>
<td>Vaddiparti, K</td>
<td>56</td>
</tr>
<tr>
<td>Vadhan, N P</td>
<td>97</td>
</tr>
<tr>
<td>Vaezazizi, L M</td>
<td>19</td>
</tr>
<tr>
<td>Vahidi, M</td>
<td>105</td>
</tr>
<tr>
<td>Valenstein, M</td>
<td>60</td>
</tr>
<tr>
<td>Urbiel, J</td>
<td>116</td>
</tr>
<tr>
<td>Vaddiparti, K</td>
<td>56</td>
</tr>
<tr>
<td>Valerio, A</td>
<td>102</td>
</tr>
<tr>
<td>Vallender, E J</td>
<td>94, 16</td>
</tr>
<tr>
<td>van der Westhuizen, C</td>
<td>20</td>
</tr>
<tr>
<td>Van Hedger, K</td>
<td>95</td>
</tr>
<tr>
<td>van Hout, M</td>
<td>56</td>
</tr>
<tr>
<td>van Nunen, L</td>
<td>15, 16</td>
</tr>
<tr>
<td>Van Uden, C</td>
<td>92</td>
</tr>
<tr>
<td>Vandezwater, S</td>
<td>80</td>
</tr>
<tr>
<td>Vandrey, R G</td>
<td>79, 81</td>
</tr>
<tr>
<td>VanVeldhuisen, P</td>
<td>7</td>
</tr>
<tr>
<td>Vanyukov, M</td>
<td>85</td>
</tr>
<tr>
<td>Vardanashvili, I</td>
<td>126</td>
</tr>
<tr>
<td>Varela, P</td>
<td>17</td>
</tr>
<tr>
<td>Vasilev, G</td>
<td>118</td>
</tr>
<tr>
<td>Vassileva, J</td>
<td>78, 79, 118</td>
</tr>
<tr>
<td>Vazquez-Sanroman, D B</td>
<td>123</td>
</tr>
<tr>
<td>Vega, A</td>
<td>55</td>
</tr>
<tr>
<td>Velasquez, M</td>
<td>69</td>
</tr>
<tr>
<td>Veliz, P</td>
<td>109</td>
</tr>
<tr>
<td>Vemuri, K</td>
<td>80</td>
</tr>
<tr>
<td>Vendruscolo, L</td>
<td>94</td>
</tr>
<tr>
<td>Venegas, A</td>
<td>121</td>
</tr>
<tr>
<td>Verbitskaya, E</td>
<td>26</td>
</tr>
<tr>
<td>Verdejo-Garcia, A</td>
<td>62</td>
</tr>
<tr>
<td>Verplaatse, T</td>
<td>68</td>
</tr>
<tr>
<td>Vest, B</td>
<td>54, 30</td>
</tr>
<tr>
<td>Vetrova, M</td>
<td>26</td>
</tr>
<tr>
<td>Vgontzas, A</td>
<td>18</td>
</tr>
<tr>
<td>Victor, G</td>
<td>88</td>
</tr>
<tr>
<td>Vidot, D C</td>
<td>62, 104, 106</td>
</tr>
<tr>
<td>Vieira, P</td>
<td>67</td>
</tr>
<tr>
<td>Vieira, P</td>
<td>68</td>
</tr>
<tr>
<td>Vieira, P</td>
<td>117</td>
</tr>
<tr>
<td>Villamil Grest, C</td>
<td>3</td>
</tr>
<tr>
<td>Villar-Loubet, O</td>
<td>121</td>
</tr>
<tr>
<td>Viilotitch, A</td>
<td>63</td>
</tr>
<tr>
<td>Vince, B</td>
<td>6, 117</td>
</tr>
<tr>
<td>Vincent, J</td>
<td>81</td>
</tr>
<tr>
<td>Vitaliano, G</td>
<td>17</td>
</tr>
<tr>
<td>Vitaro, F</td>
<td>98</td>
</tr>
<tr>
<td>Vittinghoff, E</td>
<td>15</td>
</tr>
<tr>
<td>Voisey, J</td>
<td>72</td>
</tr>
<tr>
<td>Voisin, A</td>
<td>64</td>
</tr>
<tr>
<td>Volkow, N</td>
<td>26</td>
</tr>
<tr>
<td>von Diemen, L</td>
<td>102, 106</td>
</tr>
<tr>
<td>Vos, T</td>
<td>54, 56</td>
</tr>
<tr>
<td>Votav, V</td>
<td>24</td>
</tr>
<tr>
<td>Vrana, C</td>
<td>29</td>
</tr>
<tr>
<td>Vselvolozhskaya, O</td>
<td>56, 75</td>
</tr>
<tr>
<td>Wagner, B</td>
<td>78</td>
</tr>
<tr>
<td>Wagner, F A</td>
<td>113</td>
</tr>
<tr>
<td>Wahle, A</td>
<td>7, 55, 62</td>
</tr>
<tr>
<td>Waite, E</td>
<td>55</td>
</tr>
<tr>
<td>Wakeford, A</td>
<td>91</td>
</tr>
<tr>
<td>Walker, D</td>
<td>82</td>
</tr>
<tr>
<td>Walker, J</td>
<td>126</td>
</tr>
<tr>
<td>Walker, L</td>
<td>31</td>
</tr>
<tr>
<td>Wall, M</td>
<td>82, 82, 88</td>
</tr>
<tr>
<td>Wall, T L</td>
<td>107</td>
</tr>
<tr>
<td>Wallace, A</td>
<td>85</td>
</tr>
<tr>
<td>Walley, A Y</td>
<td>18, 64, 87, 116</td>
</tr>
<tr>
<td>Wallingford, S</td>
<td>107, 116</td>
</tr>
<tr>
<td>Walsh, B</td>
<td>86</td>
</tr>
<tr>
<td>Walsh, R</td>
<td>21</td>
</tr>
<tr>
<td>Walsh, S L</td>
<td>4, 6, 26, 29, 57, 58, 98, 117</td>
</tr>
<tr>
<td>Walton, D</td>
<td>6</td>
</tr>
<tr>
<td>Walters, H</td>
<td>110</td>
</tr>
<tr>
<td>Walton, K</td>
<td>22</td>
</tr>
<tr>
<td>Walton, M</td>
<td>55, 85, 106, 110</td>
</tr>
<tr>
<td>Wang, A</td>
<td>88</td>
</tr>
<tr>
<td>Wang, N</td>
<td>124</td>
</tr>
<tr>
<td>Wang, S</td>
<td>101</td>
</tr>
<tr>
<td>Wang, Y</td>
<td>95</td>
</tr>
<tr>
<td>Wannas, P</td>
<td>14</td>
</tr>
<tr>
<td>Ward, G</td>
<td>18</td>
</tr>
<tr>
<td>Ware, M</td>
<td>112, 122</td>
</tr>
<tr>
<td>Warren, N</td>
<td>93</td>
</tr>
<tr>
<td>Washington, D</td>
<td>20, 29</td>
</tr>
<tr>
<td>Washio, Y</td>
<td>11, 13, 23</td>
</tr>
<tr>
<td>Waters, A</td>
<td>83</td>
</tr>
<tr>
<td>Watson, M</td>
<td>80</td>
</tr>
<tr>
<td>Weaver, J</td>
<td>120</td>
</tr>
<tr>
<td>Weaver, L</td>
<td>104, 126</td>
</tr>
<tr>
<td>Weaver, M</td>
<td>92</td>
</tr>
<tr>
<td>Webster, M</td>
<td>68</td>
</tr>
<tr>
<td>Webster, M</td>
<td>105</td>
</tr>
<tr>
<td>Webster, M</td>
<td>105</td>
</tr>
<tr>
<td>Webster, M</td>
<td>57</td>
</tr>
<tr>
<td>Webster, R</td>
<td>59</td>
</tr>
<tr>
<td>Webster, R</td>
<td>58</td>
</tr>
<tr>
<td>Wechsberg, W M</td>
<td>9</td>
</tr>
<tr>
<td>Weerts, E M</td>
<td>100, 70</td>
</tr>
<tr>
<td>Weidberg, S</td>
<td>14, 21</td>
</tr>
<tr>
<td>Weinberger, A</td>
<td>83</td>
</tr>
<tr>
<td>Weingard, K K</td>
<td>76</td>
</tr>
<tr>
<td>Weinshenker, D</td>
<td>91</td>
</tr>
<tr>
<td>Weinstein, D</td>
<td>62</td>
</tr>
<tr>
<td>Weinstein, Z</td>
<td>18</td>
</tr>
<tr>
<td>Weir, B</td>
<td>63</td>
</tr>
<tr>
<td>Weiss, F</td>
<td>60</td>
</tr>
<tr>
<td>Weiss, R D</td>
<td>73, 111</td>
</tr>
<tr>
<td>Weiss, S</td>
<td>77</td>
</tr>
<tr>
<td>Wells, J</td>
<td>56</td>
</tr>
<tr>
<td>Wendy, B</td>
<td>73</td>
</tr>
<tr>
<td>Wening, K</td>
<td>22, 95</td>
</tr>
<tr>
<td>Werb, D</td>
<td>63</td>
</tr>
<tr>
<td>West, B</td>
<td>84</td>
</tr>
<tr>
<td>Westover, A</td>
<td>110</td>
</tr>
<tr>
<td>Wetherill, R R</td>
<td>67, 97, 114</td>
</tr>
<tr>
<td>Wetzel, H</td>
<td>58, 59, 88</td>
</tr>
<tr>
<td>Wewers, M</td>
<td>84</td>
</tr>
<tr>
<td>Wheeler, P</td>
<td>106</td>
</tr>
<tr>
<td>White, D A</td>
<td>21</td>
</tr>
<tr>
<td>White, M</td>
<td>61</td>
</tr>
<tr>
<td>Whitfield, T</td>
<td>105</td>
</tr>
<tr>
<td>Wickens, C</td>
<td>79, 81, 108</td>
</tr>
<tr>
<td>Wiegand, T</td>
<td>110</td>
</tr>
<tr>
<td>Wiet, A</td>
<td>65</td>
</tr>
<tr>
<td>Wiggers, J</td>
<td>65</td>
</tr>
<tr>
<td>Wiley, J L</td>
<td>3, 58, 87, 127</td>
</tr>
<tr>
<td>Willhelm, A</td>
<td>118</td>
</tr>
<tr>
<td>Williams, A</td>
<td>24, 88</td>
</tr>
<tr>
<td>Williams, D</td>
<td>83, 88</td>
</tr>
<tr>
<td>Williams, G</td>
<td>15</td>
</tr>
<tr>
<td>Williams, P</td>
<td>2</td>
</tr>
<tr>
<td>Williams , S</td>
<td>68</td>
</tr>
<tr>
<td>Williamson, S</td>
<td>5, 58</td>
</tr>
<tr>
<td>Wilson, A G</td>
<td>28</td>
</tr>
<tr>
<td>Wilson, B</td>
<td>62</td>
</tr>
<tr>
<td>Wilson, D</td>
<td>18</td>
</tr>
<tr>
<td>Wilson, M</td>
<td>22</td>
</tr>
<tr>
<td>Wilson, M</td>
<td>114, 6</td>
</tr>
<tr>
<td>Winfield, M</td>
<td>80</td>
</tr>
<tr>
<td>Winhusen, T</td>
<td>25, 113</td>
</tr>
<tr>
<td>Winn, T</td>
<td>69</td>
</tr>
<tr>
<td>Winstanley, E L</td>
<td>109</td>
</tr>
</tbody>
</table>
Winstock, A 96
Winston, S 17, 18
Winter, M 64
Wolf, E 11
 Wolfe, M 14
Wolfenden, L 65
Wolf, M 104, 126
Wong, J 67
Wood, A 61
Wood, E 30, 69, 63
Woodcock, E 91, 15, 57
Woodstock Striley, C 24, 110, 116, 106, 109, 106, 82, 109, 110, 110, 24, 69
Woodward, J 118
Woody, G 62
Woody, G E 15
Woody, G 26
Wooldridge, L 80
Woolley, J 62
Wright, N 85
Wright, S 98
Wscieklica, T 17
Wu, A 15
Wu, E 88
Wu, K 106
Wu, L 55, 7
Wu, Q 53
Wu, S 84, 106
Xi, Z 119
Xie, Z 95
Xu, H 121
Xu, J 11
Xuan, Z 85
Xue, L 104
Yadav, D 90
Yadav, S 18
Yamamoto, D 80, 14
Yang, G 85
Yang, H 84
Yang, M 55
Yaroslavtseva, T 26
Yarzebski, J 87
Yassin, N 30
Yee-Rios, Y 123
Yeh, H 79, 56
Yen, C 84
Yip, D 88
Yip, S W 8, 11, 85
Yonkers, K 25, 55, 103
Yoon, J 81
Yoon, S 100
Yorick, R 26
Young, H 56, 116
Young, K 97
Young, L 116
Young, M 107, 116
Young, R 120, 72
Young, S 4, 107
Young, Y 84
Yun, J 101
Zabransky, T 126
Zack, M 15
Zadzielski, E 23
Zakiniaeiz, Y 67
Zamora, J 114
Zampese, E 95
Zatreh, M 110
Zawertailo, L 83, 14, 65, 15
Zenoni, N 92
Zepeda Carrillo, E 17
Zerbe, G 78
Zhai, Z 11
Zhan, C 117
Zhang, H 15
Zhang, H 15
Zhang, X 121
Zhang, X 95
Zhang, Y 111, 58
Zhang, Y 109
Zhao, Y 101
Zheng, F 117
Zheng, G 115
Zheng, P 88
Zhong, B 13
Zhou, Y 72
Zimmerman, M 30, 106
Zorrilla, E 6
Zucker, R A 85
Zuluaga-Ramirez, V 80
Zvartau, E E 26
Zvolensky, M 7, 82
Zvorsky, I 12
SYMPOSIA

Sunday, June 18

I. What is the Role of Sleep in Substance Use? Evidence from Studies of Cannabis, Alcohol, and Opioid Use
   Chairs: Patrick Finan and Brant Hasler

Sleep disturbance is pervasive in society. Between 10% and 30% of the population experience a range of symptoms of insomnia, defined as difficulty initiating or maintaining sleep with accompanying daytime impairments. Recently, there has been a surge in research investigating sleep among individuals with substance use disorders (SUDs), revealing that sleep disturbance is more prevalent and severe among those with SUDs compared to the general public. This symposium addresses the current state of the science on sleep in SUDs by evaluating sleep and circadian disturbance through multiple assessment modalities [self-report, salivary melatonin, and electroencephalography (EEG)] and in the context of varying degrees of substance use. Topics covered will include the theoretical view that sleep disturbance increases risk for SUDs by altering affective tone via alterations to mesolimbic reward system neurocircuitry; the role of circadian rhythms in altering reward system function in adolescents and young adults with regular alcohol use; ambulatory sleep EEG data from treatment-seeking cannabis users; and sleep and circadian differences, gathered across multiple assessment modalities, in cannabis and alcohol users. Novel, unpublished data will be presented throughout the symposium.

II. Translational Approaches to Uncovering the Mechanisms Underlying Neonatal Abstinence Syndrome
   Chairs: Lisa Brents and Jessica Coker

Neonatal abstinence syndrome (NAS) is a constellation of withdrawal symptoms that most often occurs in newborns chronically exposed to opioids during the prenatal period. Opioid-induced NAS is characterized by inconsolable high-pitched crying, tremor, feeding problems (vomiting, diarrhea, poor sucking and breathing coordination), heightened pain sensitivity, and sleep disturbances. In step with the ongoing opioid abuse epidemic, the incidence of NAS has risen almost 5-fold since 2000, from 120 to 580 per 100,000 children born in U.S. hospitals. As such, important clinical research focusing on NAS epidemiology, NAS assessment and symptom scoring, and clinical care for the mother-child dyad has increased; however, basic research that delves into the mechanisms of NAS risk and development has not been as greatly stimulated. Such research, which can be conducted in both humans and rodent models, is needed for the development of new pharmacological and non-pharmacological preventions and treatments for NAS. Research to be presented in this symposium focuses on NAS mechanisms; specific topics will include opioid pharmacokinetics and pharmacogenetics in human mother-child dyads and rodent models of prenatal opioid exposure and neonatal opioid withdrawal. The overall goal of the symposium is to synergize the development of new NAS preventions and therapies by focusing the attention of a diverse audience of addiction researchers on the untapped potential of applying basic science research to NAS.
SYMPOSIA

Sunday, June 18

III. Dark Minds: Neural and Biobehavioral Substrates of Negative Affect Regulation in Addiction
Chairs: Sarah Yip and Lora Cope

Emotion regulation, the ability to dynamically influence the experience and expression of one’s emotions, is a central adaptive process that is altered in addiction and plays a key role in the acquisition, maintenance, and outcome of substance use disorders. However, the neurobiological substrates of emotion regulation among individuals with addictions remain poorly characterized. This symposium will showcase novel human neuroimaging and laboratory work in order to explore negative affective and control-related aspects of emotion regulation as: (i) a vulnerability factor for addiction; (ii) a predictor of future substance use; and (iii) a target for treatment development. Speakers will present neuroimaging evidence for altered processing of negative affect among adolescents with illicit substance use and among young adults with a non-drug addiction (Internet gaming disorder), as well as on the prognostic significance of brain activations to negative affective stimuli in relation to later cannabis- and alcohol-use in youth. In addition, data from laboratory studies will be presented to demonstrate that cognitive regulation of emotion is impaired during early withdrawal from cocaine, and is an effective predictor of relapse outside the laboratory that may be improved by adrenergic agents.

Monday, June 19

IV. Brain Recovery in Addiction: From Biomarkers to Functional Outcomes
Chairs: Rajita Sinha and Carlos Blanco

Chronic drug abuse results in structural and functional brain changes that map onto cognitive, social and emotional adaptive processes that significantly impact development, course and severity of addictive disorders. At the same time, with effective treatments and abstinence, addicted patients recover, and yet, little is known about brain recovery and its impact on clinical and functional outcomes. Speakers in this symposium will present new neuroimaging findings combined with clinical relapse and recovery outcomes to begin to shed light on brain processes that prevent relapse and are significant in regaining cognitive, emotional and adaptive functioning during addiction recovery. Talks will demonstrate that 1) neural substrates that process aversive states undergo significant changes as a function of recovery from acute substance use disorder, consistent with the notion that prolonged substance use is associated with an allostatic state; 2) brain structural, fMRI and event-related potential results in cocaine-addicted individuals showing recovery of the neural correlates underlying advantageous decision making and other executive functions, drug-seeking and cue-induced craving; 3) former cigarette and cocaine users have structural and functional brain changes associated with improved cognitive control in abstinence; 4) brain structural and fMRI of stress, trauma and drug cue responses can prospectively predict relapse and recovery from substance use disorders. The discussion will include potential biomarkers of addiction relapse and recovery that can inform novel treatment development efforts in addiction from a precision medicine perspective.
SYMPOSIA

Monday, June 19

V. Informing Tobacco Product Regulatory Policies through Addiction-Related Research
Chairs: Jennifer Naylor and Lynn Hall

The Tobacco Control Act granted the Food and Drug Administration’s (FDA) Center for Tobacco Products (CTP) the authority to regulate the manufacture, marketing, and distribution of tobacco products to reduce the harm from tobacco use and protect the public health. CTP relies on tobacco regulatory science research to inform its regulatory activities in several priority areas, including reducing the addictiveness of tobacco products. The overall goal of this symposium is to bring the addiction community up to date about how current addiction research is being used to inform FDA’s regulatory authority. Speakers will present an overview and data related to multiple research areas currently informing tobacco regulatory science, including rodent, nonhuman primate, and human subjects. Specifically, the proposed research areas include investigations of the reinforcing effects of tobacco product constituents, preclinical models aimed at describing and validating biological markers of nicotine dependence, the role of flavor additives in the potential abuse liability of tobacco products, and the usefulness of behavioral economics and behavioral marketplace models to describe and predict tobacco use behavior. The discussant will highlight parameters that characterize tobacco regulatory science, and stimulate discussion of how future addiction-related studies may inform the FDA’s regulation of tobacco products.

VI. Sex as a Biological Variable: Research Findings from NIH Office of Research on Women’s Health and NIDA Center Grants – Ahead of Its Time or Long Overdue?
Chairs: Cora Lee Wetherington and Sherry McKee

The first three speakers in this symposium are recipients of P50 center grants co-funded by the NIH Office of Research on Women’s Health (ORWH) and NIDA under ORWH’s Specialized Centers of Research (SCOR) on Sex Differences program which supports established scientists conducting research at 11 centers across the country that each integrate basic, clinical, and translational research approaches with a primary sex/gender focus. The ORWH/NIDA SCORs, now in at least their fifth year, each take a sex/gender-based translational perspective with a view toward therapeutic approaches, both pharmacologic and behavioral. Research findings will be presented from animal and human projects focusing on probing the noradrenergic system and its interactions with cholinergic and dopamine systems in stress-induced smoking relapse; the impact of oxytocin and noradrenergic system manipulations in cocaine and nicotine dependence; and medications to reduce cocaine, nicotine and marijuana use and relapse via reducing impulsivity. A fourth speaker will elaborate on the recent NIH Sex as a Biological Variable (SABV) policy with recent research findings that inform implementation of that policy in drug addiction research. Finally, the discussant will tie together and synthesize the presentations from an historical, translational and moving-forward perspective, leaving time for panel and audience dialogue. The underlying goal of the symposium is to emphasize the scientific and translational benefit, indeed necessity, of incorporating SABV across the full continuum of drug abuse research in order to achieve the goals of the Precision Medicine Initiative for both men and women.
The prevalence of chronic pain continues to rise in the United States causing individual suffering and contributing to morbidity, mortality and disability and burgeoning economic and societal costs. Approximately 30% of adult Americans suffer from chronic pain and the estimated annual cost of chronic pain in the United States is between $560 to over $600 billion including the cost of healthcare and lost productivity. Individuals suffering from chronic pain tend to present with multiple medical and psychiatric co-morbidities including opioid misuse/abuse. The national attention on the “opioid epidemic” has stimulated a great deal of scholarly activity on identifying risk factors and mitigation strategies to curtail the soaring rate of prescription opioid misuse, abuse and opioid-related fatalities. While prescription opioid misuse and abuse has become a public health crisis, other substances of abuse are also common in patients with pain and can be equally as devastating to an individual’s quality of life. The specific aim of this symposium is to provide an overview of the current state of the field of pain and addiction including the highly-debated issues surrounding prescription opioids but going beyond opioids to address other substances of abuse. This multidisciplinary panel will provide data from original research on a spectrum of substances of abuse in the pain population including: nicotine; alcohol, opioids and cannabis and a novel pain treatment program for individuals completing substance abuse treatment.

Alcohol and nicotine are often co-abused, and individuals with concurrent alcohol and tobacco use disorder have the poorest treatment outcomes. Basic research can increase our understanding of the environmental and biobehavioral mechanisms underlying alcohol and nicotine use and co-addiction, and facilitate the development of better treatments. This symposium will provide a translational view of alcohol and nicotine interactions on drug-taking behaviors and cue reactivity in rodents, non-human primates and humans. The first speaker will present his preclinical rodent model of co-administration of alcohol and nicotine. As both drugs have been shown to affect endogenous opioid as well as nicotinic acetylcholinergic activity, his studies examined data on how co-administration impacts the effects of naltrexone and varenicline on alcohol and nicotine self-administration. A second talk will present a preclinical non-human primate model of concurrent alcohol and nicotine self-administration, with research that addresses current questions on how to treat alcoholic smokers; Another talk will describe a series of human laboratory studies examining the effects of salient alcohol and nicotine cues, as well as drug priming effects, on motivation to use both substances and discuss a common theme that involves the role of individual differences in drug intake and/or dependence as moderators of cue and drug effects.
Drinking alcohol and smoking cigarettes during pregnancy are the leading modifiable risk factors for pregnancy-related morbidity, mortality, and adverse outcomes in children. Fetal alcohol spectrum disorders (FASD) as a result of prenatal alcohol exposure are currently known as the leading cause of mental retardation in the U.S. and far more prevalent among children than was previously thought. Cigarette smoking is associated with a number of adverse maternal and child health problems and more information is needed regarding the impact of alternative tobacco products on health outcomes. Recent evidence has shown that prenatal exposure to cannabis and THC can cause many serious, adverse effects on birth outcomes. Although most women are able to abstain from drug use in the prenatal period, these three substances remain the most commonly co-used substances during pregnancy, with alcohol being used by women of all social strata especially during the first two trimesters. While marijuana is becoming more available legally, potentially impacting public perception of the harm of using marijuana, public health education on the neonatal consequences of drinking alcohol and smoking has contributed to an increase in maternal under-reporting of these substances. The specific aims of the proposed session are to (1) present the most recent evidence on the prevalence and effects of maternal alcohol, tobacco, and marijuana use on birth and child outcomes with the most recent evidence with regard to FASD; and (2) present clinical and public health strategies that can potentially reduce maternal drinking, tobacco, and marijuana use.

X. How Fast and How Often? The Temporal Pattern of Drug Use Is Decisive in Addiction
Chairs: Anne-Noël Samaha and Terry Robinson

Core features of cocaine use in addicts are intermittency, between and within bouts of use, and the use of routes that lead to rapid drug onset. However, how often and how fast drug levels rise are generally ignored in animal models of addiction. This symposium will show that these temporal factors are critical in addiction and ignoring them can lead to false conclusions. There is increasing data on the patterns of voluntary drug taking in laboratory rodents, but virtually none in humans. The work presented includes studies on the frequency and dosage of heroin and cocaine taking in outpatients of an addiction clinic. The findings will be linked to results from animal studies and drug reward theories. Intermittency of use is not captured by traditional self-administration procedures in animals. An Intermittent-Access self-administration procedure promotes addiction-like behaviors, including escalation of intake, high motivation for cocaine and robust reinstatement of drug seeking. Intermittent and rapid spikes in brain cocaine levels each promote addiction. Intermittent-Access self-administration leads to less cocaine intake than continuous access, but promotes greater motivation for the drug. Furthermore, within Intermittent-Access sessions, rapid cocaine injections evoke more motivation for the drug than slower injections. It will be shown that the temporal pattern of cocaine use is critical in determining neurochemical adaptations. These studies highlight the importance of using animal models of addiction that consider the temporal kinetics of drug use.
SYMPOSIA

Wednesday, June 21

XI. Cloudy, with a Chance of Intoxication: E-vape Models of Drug Exposure in Laboratory Animal Models
Chairs: Michael Taffe and Julie Marusich

Humans ingest a wide variety of psychotropic drugs via inhalation and this route of administration has been associated with increased liability for uncontrolled use and addiction. Inhalation techniques include combustion of dried plant matter (tobacco, cannabis), vaporization of crystalized drug (cocaine, methamphetamine) and, increasingly, via vapor produced with e-cigarette devices. Despite this fact, laboratory animal models of drug inhalation have been rare compared with other routes of administration. Recent adaptation of vapor inhalation techniques based on e-cigarette type technology has facilitated study of drug inhalation in rodent models. Participants in this symposium will overview 1) the behavioral effects of inhalation of synthetic cannabinoids in mice; 2) the self-administration, and behavioral effects, of vaporized sufentanil; 3) the affective and cognitive effects of inhalation of crude cannabis extracts in rats; 4) the self-administration of vaporized methamphetamine and substituted-cathinone stimulants in rats. The symposium will therefore address a range of behavioral and physiological endpoints relevant to many aspects of substance use and demonstrate the efficacy of inhalation approaches for multiple drugs. The Discussant will summarize the data presented within the context of this emerging field of drug abuse research, describe related progress from the field at large and lead an audience discussion of the advantages, disadvantages and future application of these approaches.

XII. Opioid and Cannabinoid Interactions: Preclinical and Clinical Measures of Pain, Abuse Liability and Dependence
Chairs: Margaret Haney and Aron Lichtman

The current opioid abuse and overdose crisis coincides with increased societal acceptance of cannabis for medical use. Given the bidirectional, modulatory relationship between the opioid and cannabinoid systems, a symposium highlighting recent preclinical and clinical evidence of the interaction between these two drug classes on endpoints related to pain, abuse liability and dependence is timely and significant. Talks will cover cannabinoid receptor agonists and endocannabinoid catabolic enzyme inhibitors, both which increase the antinociceptive potency of opioids in mouse models of acute and chronic pain, and ameliorate symptoms of opioid withdrawal; combining opioid receptor agonists and cannabinoid receptor agonists to achieve antinociceptive effects at doses that are much smaller than the effective doses of each administered alone in non-human primates; human laboratory data showing that smoked cannabis enhances the analgesic effects of sub-therapeutic effects of opioids; evaluating the efficacy of dronabinol (synthetic THC), to suppress opioid withdrawal signs in adults with physical dependence on opioids; and the effects of an opioid receptor antagonist on the reinforcing effects of smoked cannabis. Overall, this translational symposium is expected to be of significant interest to both the CPDD and ICRS memberships and to generate an engaged scientific discussion.
Endocannabinoids are endogenous lipid signaling molecules that are functionally related to delta-9-tetrahydrocannabinol (the primary active constituent in cannabis) and exert their effects via G-protein coupled CB1 and CB2 receptors. Brain endocannabinoid signaling modulates synaptic activity in regions implicated in reward, affect and motivation and is stress-responsive. The anatomy, regulation and functional consequences of endocannabinoid signaling suggest that it contributes to illicit drug use and addiction. Accordingly, preclinical animal studies have implicated endocannabinoids and their actions at both CB1 and CB2 receptors in drug-taking and drug-seeking behavior, as well as other addiction-related phenotypes, while genetic polymorphisms in the endocannabinoid system have been associated with substance use disorder in clinical populations. This symposium will first describe findings supporting critical roles for endocannabinoid signaling in stress-related responses and in the regulation of positive and negative reinforcement through modulation of the dopamine system. Evidence implicating endocannabinoid signaling via both CB1 and CB2 receptors in the regulation of drug-seeking and drug-taking behavior in experimental animal models will be presented. Discussion topics will include opportunities and challenges for developing medications targeting the endocannabinoid signaling, potential implications for cannabis users, and gaps in our understanding of the endocannabinoid system as it relates to findings presented in the symposium.

While half of the U.S. has enacted laws to legalize the use of medical cannabis, controlled studies investigating its potential therapeutic effects remain sparse. The overarching aim of this symposium is to present findings from preclinical laboratory animal studies to large population-based studies that speak directly to the potential therapeutic effects of specific phytocannabinoids and cannabis, while also addressing adverse effects including abuse liability and cognitive performance. The panel will include 1) preclinical studies investigating the effects of phytocannabinoids hypothesized to have therapeutic effects including cannabidiol alone and in combination with delta-9-tetrahydrocannabinol in animal models of neuropathic pain, learning and memory, and physical dependence, 2) controlled human laboratory studies investigating variables that contribute to the analgesic effects of cannabis and cannabinoids including route of administration and sex-dependent effects, 3) data from the MIND (Marijuana Investigations for Neuroscientific Discovery) Program that assesses clinical endpoints, cognitive performance, as well as multimodal neuroimaging findings in patients using medical cannabis and 4) the pharmacoepidemiology of medical cannabis use, including data from a Canadian-based national multicenter study looking at the safety of medical cannabis use among patients suffering from chronic pain (COMPASS) and the Quebec Cannabis Registry to highlight the impact that cannabis use may have on clinical outcomes.
SYMPOSIA

Thursday, June 22

XV. Applications of Choice Procedures to Drug Abuse Research
Chairs: Steve Negus and Richard Lamb

Drugs of abuse are stimuli that can reinforce behavior. Determinants of drug reinforcement are often studied preclinically with self-administration procedures in which no other behavior is programmed for reinforcement; however, natural environments contain many non-drug stimuli that can function as reinforcers, and individuals allocate their behavior (or “choose”) between activities maintained by drug and non-drug stimuli. Moreover, addiction is defined in part by maladaptive allocation of behavior to drug choice, and treatment seeks both to reduce drug choice and to promote behavioral re-allocation to more adaptive choice of non-drug alternatives. The determinants of drug choice can be studied with laboratory choice procedures, in which drug and non-drug alternatives are available under concurrent schedules of reinforcement, and principal dependent variables include measures of both response allocation and response rate. This symposium will feature talks that illustrate use of drug choice procedures to investigate behavioral, environmental, biological and pharmacological determinants of drug choice in rats, monkeys, and humans. Talks will describe an ethanol-vs.-food choice procedure in rats to model recovery from, and relapse to, ethanol self-administration; social rank as an environmental determinant of cocaine-vs.-food choice in group-housed cynomolgus monkeys; the role of sex as a biological determinant of cocaine-vs.-food choice in rats; and development of parallel cocaine choice procedures in rhesus monkeys and humans for translational research on mechanisms of cocaine reinforcement. The discussant will highlight shared themes and future research opportunities.

XVI. Synthetic Cannabinoids: Thinking Outside of the Pot
Chairs: Jenny Wiley and Brian Thomas

Originally developed as research tools, synthetic cannabinoids contributed to significant scientific advances in the cannabinoid field before they were diverted for recreational use beginning in the early 2000s. Since then, the number of compounds with diverse chemical structures that have appeared on the streets has proliferated and the consequences in damaged and lost lives have multiplied. This symposium will focus on recent research on synthetic cannabinoids. The symposium will be introduced with a presentation of the latest epidemiological findings on synthetic cannabinoid use, including an overview of demographics of use and specific compounds being used. These compounds do not reach or travel through the body unchanged; rather, they undergo potential degradative and thermolytic processes prior to entry and metabolic processes after smoking. These processes may change the actual chemicals to which individuals are exposed and may alter their subsequent effects on behavior. Findings on the thermolytic and metabolic fate of synthetic cannabinoids will be followed by a presentation on the in vivo pharmacological consequences of synthetic cannabinoids and their metabolites. In addition, novel structural templates for synthetic cannabinoids will be presented, along with data on their diverse functional activities, ranging from super agonists to antagonists. The discussant will provide a street-level view of how use of these compounds is affecting individual lives and communities. Findings presented in the symposium and their translational implications are expected to serve as the basis for a lively audience discussion with the speaker panel.
WORKSHOPS

Sunday, June 18

I. **Big data: Ethical considerations in human subjects research**
   Chairs: Jonathan Stoltman and H. Westley Clark

This workshop is aimed at benefiting both junior and senior investigators in the audience through exposure to and discussion of potential ethical challenges when operating in this burgeoning area of research. The talks will be bookended by an introduction and robust discussion period moderated by an expert senior discussant. To appeal to a wide array of audience members, the panel includes human researchers ranging from junior to senior status with diverse interests within the substance abuse field. The workshop design includes brief description of Big Data in an addiction research context (e.g. CTNs and hospitals), the opportunities mining these repositories (i.e. electronic medical records, discussion boards, and mobile data) can offer, and the ethical considerations when using these sources. The workshop is designed to cover ethical considerations when using Big Data in a comprehensive manner, covering historical context, current controversies, the Common Rule, and human subject’s protection. Additionally, our expert discussant is prepared to comment on the legal perspective of ethics in Big Data projects as well as facilitate discussion on these important topics.

II. **Using behavioral and implementation sciences to achieve an AIDS-free generation among people who use drugs**
   Chairs: Wendee Wechsberg and Don Des Jarlais

Since the beginning of the HIV/AIDS epidemic, people who use psychoactive drugs have been at increased risk for HIV infection and transmission from risky injection drug practices and risky sexual behaviors. As the epidemic has evolved, people who use opiates, stimulants, and marijuana have faced increasing disparities related to the continuum of care. Moreover, drug addiction can interfere with HIV treatment outcomes, directly through biological processes and indirectly through difficulties with HIV disease management. With the goal of an AIDS-free generation, funding priorities now emphasize biomedical approaches and implementation of evidence-based interventions. Biobehavioral research remains critical to ensure that all individuals—including the most difficult to reach—can derive the maximum benefit from new biomedical treatments to reduce HIV transmission, improve HIV-related clinical outcomes, and effectively manage HIV-associated comorbidities such as cognitive disorders and co-infections. Emphasis on implementation research pushes this evidence-based science to adoption and sustainability in real world settings. This workshop will highlight recent interdisciplinary research advances, examine the associations of prevalent use of psychoactive drugs among persons living with HIV on neurobehavioral processes and gene expression, and the implementation of biobehavioral prevention approaches for groups at high risk for HIV/AIDS in usual care. Our discussant will highlight the importance of integrating biobehavioral data and advancing science through implementation research.
WORKSHOPS

Sunday, June 18

III. Assessment of abuse potential in clinical trials in the context of the finalized FDA guidance
   Chairs: Jack Henningfield and Michael Klein

Although misuse and abuse of centrally (CNS) active prescription drugs is a major public health issue, there is currently no well accepted standardized way to measure, characterize, and quantify misuse, abuse, and diversion related events for drugs in Phase II or Phase III clinical trials (CTs). Laboratory assessments of abuse liability typically involve drug-experienced subjects, and may not be generalizable to patients receiving CNS-active drugs during Phase II-III CTs or as part of routine clinical care. Sponsors may collect adverse events (AEs) of interest during CTs to identify abuse-related events, however no systematic method has previously been validated and accepted for characterizing and reporting such events. Opioid analgesics receive great scrutiny in regard to the potential for abuse, misuse, and diversion; however, other psychoactive drugs, such as stimulants and sedatives would also benefit from a standardized classification system to assess abuse potential during clinical development. The lack of suitable methods led the FDA-ACTTION public-private partnership to develop consensus terms and definitions for abuse-related events, and to review and provide guidance on standards for evaluation of abuse-related events in clinical trials. This workshop will address the need for reliable, validated tools to identify abuse-related events in clinical trials and classify them using standardized terminology, allowing the quantification of these events for regulatory submissions, providing participants information on recently developed approaches. The regulatory implications, including impacts on approval, labeling, and scheduling recommendations, of prospectively assessing abuse-related events in efficacy and safety CTs will also be addressed.

IV. Annual CPDD design and analysis workshop
   Chairs: Sterling McPherson and Susan Mikulich-Gilbertson

In this third Annual CPDD Design and Analysis Workshop, the primary goal is to expose attendees to a variety of design and analysis issues and state-of-the-art methods relevant to substance use research. Our specific aims are to present overviews with real-world examples on the following topics: 1) how to use count models to evaluate the impact of population level events (e.g., marijuana legalization, prescription opioid reformulation) in quasi-natural experiments 2) a primer on health utilities and quality-adjusted life years (QALYs) as relates to substance use research; 3) an overview of pharmacokinetics and pharmacodynamics and how to estimate drug exposure and understand drug and metabolite values; 4) how to use existing data to estimate population level pharmacokinetics and pharmacodynamics; followed by a discussion of 5) how to use these novel methodologies to ask and answer questions in substance use research. Each of these topics is timely and important for multiple domains of substance use research. Each will be presented in a non-technical, accessible fashion in an effort to generate discussion among presenters and audience members around how such considerations are applicable to various situations. Our intent is to empower other researchers by disseminating state-of-the-art methods as applied to real-world examples. The overall goal is to raise awareness and the level of quality in the methods that prevail throughout substance use research.
WORKSHOPS

Monday, June 19

V. Navigating key stages of a career in addiction science
Chairs: Denise Vidot and Qiana Brown

If you are a budding addictions investigator with new ideas and eager to find your niche in the world of research, but could use some guidance, then this workshop is for you. The workshop will focus on navigating three key early career stages: 1) Pre-Doctoral, 2) Post-Doctoral, and 3) Early Career/Faculty. Three of your colleagues, who have ‘been there and done that’ want to share their experiences with you. Each presentation will outline steps that can be taken to maximize your career stage-specific experience and make you a competitive job applicant for the next stage of your career. Examples of topics that will be covered include how to choose your mentors; striking a balance between executing your mentor’s vision and growing as an independent scientist; how to narrow down an innovative and significant research question; publishing amidst other responsibilities; obtaining grant-writing experience; establishing your niche and conveying its importance to potential employers; collaborating and networking; deciding whether to teach; life-work balance; finding the NIH funding mechanisms that are most appropriate for you and how to begin writing your grant; and crucial to it all – time management strategies. Each talk will have a centered theme of the value of your mentoring team as you travel the path to independent investigator.

VI. Development of adaptive treatment strategies in the management of drug dependence: Lessons learned from clinical trials currently in the field
Chairs: Joy Schmitz and Charles Green

A core principle of drug addiction treatment states that no single treatment is appropriate for everyone; rather, treatments need to be adjusted based on patient characteristics and response in order to be maximally effective. Ideally, clinicians would identify a sequence of interventions that works best across different stages of treatment, from abstinence initiation to relapse prevention. Development of effective adaptive interventions calls for a shift in how we conduct randomized clinical trials (RCTs). The goal of this workshop is to highlight several real-world sequential, multiple assignment, randomized trials (SMART) currently in the field. Following brief introductory remarks on the role of adaptive experimental designs in addiction research, each speaker will describe how their trial is designed to answer questions of how and when to alter the course of treatment to improve patient outcome. By sharing insights and lessons learned from four diverse trials, the audience will gain practical knowledge in using SMARTs to address a broad range of problems related to substance use. Our discussant will review disadvantages and advantages of SMARTs relative to traditional fixed-intervention trial designs and describe future directions for adaptive intervention research.
VII. Prescription monitoring programs – Issues and impact
Chairs: Beth Sproule and Suzanne Nielsen

Prescription monitoring programs (PMP) are designed to enhance patient care and assist in the safe use of controlled prescription drugs, to help reduce the harms resulting from the use of controlled prescription drugs, and to assist in reducing the diversion of controlled prescription drugs. However, interest in PMP research has increased only in recent years. The aims of this workshop are to describe the challenges in the development and implementation of PMPs, to delineate the practice implications for health care practitioners, to demonstrate how PMP data can be used to evaluate the impact of prescribing guidelines, and to review the evidence to date of the effectiveness of PMPs. The context for PMPs as an intervention strategy to address the problem of prescription drug abuse will be discussed. Future research needs will be identified.

VIII. 23rd Annual Contingency Management Working Group
Chairs: Diann Gaalema and August Holtyn

The Contingency Management (CM) Working Group, held annually during the CPDD convention, is an opportunity for the discussion and dissemination 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 22nd 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.

Tuesday, June 20

IX. Writing workshop for emerging investigators: Profiting from peer review
Chairs: James Sorenson and Eric Strain

The addiction research field needs increasingly productive investigators who create high-quality scientific reports. Peer review (feedback from colleagues) is a traditional means of improving the quality of science. The peer review process, however, can be demoralizing. Building on a previous CPDD workshop, our aim is to help emerging investigators to profit from the comments and suggestions of peers, mentors, and formal reviews of research manuscripts. Presenters include both emerging and established investigators, as well as a current editor of an addiction research journal and an editorial liaison. All presenters suggest both conceptual and practical guidelines, and they provide several useful resources. While the workshop is aimed at young investigators, both junior and senior colleagues can benefit and provide their perspective.
WORKSHOPS

Tuesday, June 20

X. Epidemiology and public health research methods
  Chairs: Jim Anthony and Howard Chilcoat

This workshop series on epidemiology and public health research methods aims to provide participants with an introduction to three topics: (1) an epidemiological 'mutoscope' developed at Michigan State University, with comparison to a 'constrained regression' approach to age-period-cohort research; (2) an adaptation to four-parameter Hill functional analysis for epidemiological estimates, as an alternative to logistic regression for complex sample data, developed at University of Kentucky; and (3) the multiphase optimization strategy (MOST) developed at Pennsylvania State University to guide the evaluation of research evidence, to develop optimized behavioral interventions, and to enhance Type I and Type II translation of research. The workshop will enable participants to apply these research approaches in their own studies. At minimum, they will have a better understanding of published evidence based on these approaches.

XI. Advances in substance use disorder treatments for racial/ethnic minorities: Where do we go from here?
  Chairs: Kathy Burlew and LaTrice Montgomery

A growing but compelling body of evidence suggests that interventions such as Motivational Interviewing (Montgomery et al., 2011), Cognitive Behavioral Therapy (Windsor et al., 2015) and Contingency Management (Montgomery et al., 2015) are inadequate for improving substance use disorder (SUD) outcomes for racial/ethnic minorities. One objective of the Minority Interest Group of NIDA’s Drug Abuse Treatment Clinical Trials Network (CTN) is to identify effective SUD treatments for racial/ethnic minorities. Recent CTN research has identified promising directions for future treatments, such as the cultural adaptation of evidence-based treatments and the use of technology. The aim of this session is to provide recommendations from CTN research for improving SUD treatment outcomes across four racial/ethnic minority groups. Speakers will discuss the effectiveness of an exercise intervention for Hispanics; racial and ethnic differences in histories of sexual and physical abuse and implications for SUD treatment; a promising internet-based intervention for African American and Hispanic adults; adapting web-based interventions for American Indians/Alaska Natives; and a smart phone-based smoking intervention and the barriers for treatment among Asian Americans and Pacific Islanders. All speakers will address how their recent CTN research informs future directions for SUD treatment for racial/ethnic minorities.
WORKSHOPS

Tuesday, June 20

XII. NIDA medications development workshop: Addressing bad behavior in clinical trials
   Chairs: David McCann and Tanya Ramey

This workshop will provide three brief presentations on topics related to research subject dishonesty/deception, including the description of important new procedures that can be implemented in clinical trials to address the problem. Specific aims are to familiarize attendees with 1) the results of survey research conducted on repeat clinical trial participants, many of whom have admitted to deceiving research investigators by withholding information (e.g., related to exclusionary medications or ongoing participation in another study), by exaggerating symptoms, or by pretending to have health problems that they do not have; 2) the availability of HIPPA-compliant clinical trial registries that can prevent the simultaneous enrollment of a subject in multiple clinical trials, or at multiple sites within a clinical trial; and 3) new medication adherence monitoring technologies, including smartphone-based remote observation with facial recognition software. Ample time will be provided for open discussion.

XIII. New NIH guidelines for reproducibility, rigor and transparency: Ethical and practical conundrums
   Chairs: Michael Kuhar and Susan Weiss

A shocking finding has been that some scientific groups, including from Industry (Pharma) have been unable to replicate findings from key papers in their respective fields. This has led to a loss of public confidence in the scientific endeavor, and a major effort by the NIH and others to establish new guidelines to improve reproducibility. The guidelines for grant applications emphasize critical assessment of the scientific premise of a proposed project, and identifying strategies to improve the rigor and transparency of the work. These new guidelines are incorporated in the review of NIH grants and have also been endorsed by many journal editors; thus, they are receiving significant and well-deserved attention. The carrying out of rigorous, reproducible work with public funds is also an ethical issue. This workshop will address these topics by briefly describing the guidelines, presenting a realistic, but fictitious case, and then engaging the audience in discussion of how to best handle it. Topics to be covered include 1) evaluating the scientific premise -- assessing the quality of the scientific basis for a hypothesis, including in novel or developing areas of science; 2) ensuring rigorous methodology, with sufficient transparency for replication by other investigators; 3) investigator responsibilities for improving reproducibility, rigor, and transparency. The goal of this workshop is to help CPDD members understand these newer ethical requirements in concrete terms.
Acknowledgements

The following organizations and individuals have financially supported the work of the CPDD organization during the past year

Altasciences Clinical Research
Apt Foundation
Patrick Beardsley
Behavioral Pharmacology Research Unit at Johns Hopkins Medical School
Jack Bergman
George Bigelow
Alan J. Budney
Kathleen M. Carroll
Center for Substance Abuse Research, Lewis Katz School of Medicine at Temple University
Howard D. Chilcoat
Theodore J. Cicero, Washington University in St. Louis
Timothy Condon
Toby K. Eisenstein
Loretta P. Finnegan
Gnatt Galloway
Grünenthal USA, Inc.
Margaret Haney
Sarah H. Heil
Leonard Howell
Marc J. Kaufman
Gundy Knos
Dr. & Mrs. Donald Mees, Jr.
John Neeld
Charles O’ Keeffe
Wallace Pickworth
William Stoops
Jennifer Tidey
David Tompkins
Wendee Wechsberg
Mark Wentland

Funding for this conference was made possible (in part) by 5 R13 DA 013192 - 13 from the National Institute on Drug Abuse

The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government