BOARD OF DIRECTORS

Sharon Walsh, PhD, President
Stephen T. Higgins, PhD, Past-President
Linda J. Porrino, PhD, President-Elect
Stephen G. Holtzman, PhD, Treasurer
Patrick M. Beardsley, PhD
Steven R. Childers, PhD
Theodore J. Cicero, PhD
Richard De La Garza, II, PhD
Toby K. Eisenstein, PhD
David A. Fiellin, MD

A. Thomas McLellan, PhD
Geoffrey K. Mumford, PhD
Michael A. Nader, PhD
Edward V. Nunes, MD
Alison Oliveto-Beaudoin, PhD
Richard A. Rawson, PhD
Maxine L. Stitzer, PhD
Eric C. Strain, MD
Dace S. Svikis, PhD

EXECUTIVE OFFICER

Martin W. Adler, PhD

SCIENTIFIC PROGRAM COMMITTEE

Sari Izenwasser, PhD, Chair
Martin W. Adler, PhD, ex officio
Ellen B. Geller, MA, ex officio
Alan Budney, PhD
Sandra Comer, PhD
Mark Greenwald, PhD
Kathleen Kantak, PhD
Michelle Lofwall, MD
Lance McMahon, PhD
Dace Svikis, PhD
Jennifer Tidey, PhD
Ellen Unterwald, PhD
Elise Weerts, PhD
Friedbert Weiss, PhD
PRE-MEETING SATELLITES

The International Study Group Investigating Drugs as Reinforcers (ISGIDAR)
Chaired by Elise Weerts

9th Annual Meeting Center for Substance Abuse Treatment (CSAT)
Chaired by Cathy Crowley

The 14th Annual NIDA International Forum on Building International Research on Drug Abuse: Progress through Collaboration
Chaired by Steven Gust

Treating Addiction during Pregnancy: Exploring Multinational Perspectives to Build a Treatment Approach Consensus
Chaired by Hendree Jones

CPDD REGISTRATION
Ponderosa A

Saturday, June 20
1:30 PM - 5:00 PM
(Pool Area) 7:00 PM - 7:30 PM

Sunday, June 21
8:00 AM - 12:00 PM
1:30 PM - 5:00 PM

Monday, June 22
8:00 AM - 12:00 PM
1:30 PM - 5:00 PM

Tuesday, June 23
8:00 AM - 1:00 PM

Wednesday, June 24
8:00 AM - 12:00 PM
1:30 PM - 5:00 PM

Thursday, June 25
8:00 AM - 1:00 PM

OPENING RECEPTION
7:00 - 9:00 PM
(Cash Bar) Pool Area
Sunday, June 21, 2009

CSAT Travel Awards Breakfast
(By Invitation Only)
Poolside Terrace
7:00 - 8:00 AM

Plenary Session
Rose Ballroom A
8:30 - 11:00 AM

8:30  Welcome, CPDD President
      Sharon L. Walsh
8:45  Report from the National Institute on Drug Abuse
      Nora Volkow, NIDA
9:15  Presentation of the CPDD/NIDA Media Award to Nancy Campbell
      Introduction by Marc J. Kaufman
9:25  Presentation of the Joseph Cochin Young Investigator Award to Laura Bohn
      Introduction by Linda Dykstra
9:30  Presentation of the Mentorship Award to George Bigelow
      Introduction by Stephen Higgins
9:35  Presentation of the Nathan B. Eddy Award to Robert L. Balster
      Introduction by Louis Harris
9:40  Nathan B. Eddy Award Lecture
      Robert L. Balster

EARLY CAREER INVESTIGATOR
AWARDS LUNCHEON
(By Invitation Only)
Poolside Terrace
11:30 AM - 1:00 PM

Presidential Symposium
Rose Ballroom A
1:00 - 3:00 PM

OPiOiD RECEPTORS FROM THE CUTTING EDGE TO THE CLINIC:
KNOCKOUTS, CROSSTALK AND BEHAVIOR

Chair: Sharon L. Walsh

1:00  Our shifting view of the nature of the opioid receptors
      Christopher Evans, University of California, Los Angeles, Los Angeles, CA
1:20  Cellular mechanisms of opioid receptor regulation
      Mark Van Zastrow, University of California, San Francisco, CA
1:40  Novel mouse model of human OPRM1 polymorphism (A118G)
      Julie Blendy, University of Pennsylvania, Philadelphia, PA
2:00  Involvement of the endogenous opioid system in nicotine reward
      Rafael Maldonado, Universitat Pompeu Fabra, Barcelona, Spain
2:20  Discussant
      Nora Volkow, Director of NIDA

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Symposium I  

HOW DOES STRESS CONTRIBUTE TO ADDICTION VULNERABILITY? STUDIES FROM ADOLESCENT AND ADULT SAMPLES  

Chairs: Rajita Sinha and Kathleen T. Brady  

3:15  Racial differences in stress, emotional regulation and DSM-IV substance abuse and dependence in young, low-income women  
Helen Wu, University of Texas Medical School-Houston, Galveston, TX  

3:40  Hypothalamic-pituitary-adrenal axis and substance use among adolescents: The TRAILS study  
Anja Huizink, Erasmus Medical Center, Rotterdam, CB Rotterdam, Netherlands  

4:05  Stress response and risk for substance use in prenatally cocaine-exposed and non-exposed adolescents  
Tara Chaplin, Linda Mayes, Yale University School of Medicine, New Haven, CT  

4:30  Altered nucleus accumbens activity in individuals with high childhood trauma is predictive of addictive behaviors  
Rajita Sinha, Zhiru Jia, Yale Stress Center, Yale University School of Medicine, New Haven, CT  

4:55  Discussant  
Kathleen T. Brady, Medical University of South Carolina, Charleston, SC  

Symposium II  

VIRTUAL MODELING: A NEW FRONTIER FOR INVESTIGATING DRUG-RECEPTOR INTERACTIONS  

Chair: Christopher K. Surratt  

3:15  Uptake inhibitor interactions in the primary and “staging area” substrate pockets of the plasma membrane monoamine transporters  
Christopher K. Surratt, Duquesne University, Mylan School of Pharmacy, Pittsburgh, PA  

3:40  Ligand-receptor docking of epibatidine analogs to a nicotinic acetylcholine receptor model  
S. Wayne Mascarella, Research Triangle Institute, Research Triangle Park, NC  

4:05  Understanding sigma receptor ligand interactions  
Christopher McCurdy, University of Mississippi School of Pharmacy, University, MS  

4:30  A structural model of salvinorin A recognition at the kappa opioid receptor  
David M. Ferguson, University of Minnesota, Minneapolis, MN  

4:55  Discussant  
F. Ivy Carroll, Research Triangle Institute, Research Triangle Park, NC  

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Oral Communications 1  
Rose Ballroom A  
3:15 - 5:15 PM

A FULL HOUSE OF NOVEL TREATMENTS

Chairs: Susan C. Sonne and Kevin Gray

3:15  
Extended-release naltrexone for treatment of alcohol dependence in primary care  
J. D. Lee, E. Grossman, D. DiRocco, J. Rotrosen, D. Stevens, M. Gourevitch, Medicine, NYU School of Medicine, New York, NY

3:30  
The use of acamprosate vs placebo in alcoholics with comorbid anxiety or depression  
S. C. Sonne¹, J. S. Potter², R. N. Rosenthal³, C. Tyson¹, ¹Medical University of South Carolina, Charleston, SC, ²McLean Hospital, Belmont, MA, ³Columbia University, New York, NY

3:45  
A randomized placebo-controlled trial of sertraline and sertraline plus gabapentin in depressed, recently abstinent cocaine-dependent patients  
M. J. Mancino, Z. Feldman, M. Chopra, C. S. Cargile, A. Oliveto, Psychiatry, University of Arkansas for Medical Sciences, Little Rock, AR

4:00  
Atomoxetine in marijuana-dependent adults with ADHD  
A. McRae-Clark¹, R. E. Carter², T. K. Killeen¹, M. J. Carpenter¹, K. T. Brady¹, ¹Psychiatry, Medical University of South Carolina, Charleston, SC, ²Biometry, Medical University of South Carolina, Charleston, SC

4:15  
Bupropion SR and contingency management in adolescent smokers: Main findings  
K. M. Gray¹, M. J. Carpenter¹, N. L. Baker¹, E. M. Klintworth¹, A. S. Leinbach¹, H. P. Upadhyaya¹,², ¹Medical University of South Carolina, Charleston, SC, ²Eli Lilly and Company, Indianapolis, IN

4:30  
Dextroamphetamine as a treatment for methamphetamine dependence  
G. P. Galloway, L. Fiske, J. D. Siegrist, M. J. Baggott, K. Flower, R. Buscemi, D. Polcin, J. Mendelson, Addiction Pharmacology, California Pacific Medical Center Research Institute, San Francisco, CA

4:45  
Long-acting vs. oral naltrexone for preventing heroin addiction relapse  
E. Krupitsky¹, E. Zvartau¹, E. Verbitskaya¹, V. Egorova¹, D. Masalov¹, M. Tsoi¹, A. Burakov¹, N. Bushara¹, T. Romanova¹, T. Slavina¹, A. Tyurina¹, V. Palatkin¹, G. E. Woody², ¹Addictions, Pavlov State Medical University, St. Petersburg, Russia, ²Psychiatry, University of Pennsylvania, Philadelphia, PA

Oral Communications 2  
Rose Ballroom B  
3:15 - 5:15 PM

AGING AND DEATH: THE DECK IS STACKED

Chairs: Stefan Kertesz and Howard Chilcoat

3:15  
Prescription drug use among baby boomers: Insights from clinician interviews  
C. L. Striley, K. S. Leung, V. Satyanarayana, A. Ben Abdallah, L. B. Cottler, Psychiatry, Washington University School of Medicine, St. Louis, MO

3:30  
Trajectories of illicit drug use among adults in the general population (the CARDIA study)  
S. Kertesz¹,², M. Pletcher³, B. Jones⁴, J. Tucker², Y. Khodneva², ¹Birmingham VAMC, Birmingham, AL, ²University of Alabama, Birmingham, AL, ³University of California, San Francisco, CA, ⁴Carnegie-Mellon University, Pittsburgh, PA
3:45  **Testing pathways between alcohol and opioid dependence**  
H. Chilcoat1,3, N. Dasgupta2,1, S. S. Martins3,  
1Worldwide Epidemiology, GlaxoSmithKline, Research Triangle Park, NC,  
2Epidemiology, University of North Carolina, Chapel Hill, NC,  
3Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

4:00  **Late injection drug use initiators: Epidemiological trends and risk factors**  
A. Kral1,2, L. Wenger1, L. Carpenter1, P. Bourgois3, M. Iguchi4,5,  
R. Bluthenthal4,6,  
1RTI International, San Francisco, CA,  
2University of California, San Francisco, CA,  
3University of Pennsylvania, Philadelphia, PA,  
4RAND, Santa Monica, CA,  
5University of California, Los Angeles, CA,  
6California State University, Dominguez Hills, Los Angeles, CA

4:15  **Persistence of cocaine use once it starts: Initial findings from epidemiological research**  
E. Meyer, J. Anthony, Epidemiology, Michigan State University, East Lansing, MI

4:30  **Age effects on heroin and prescription opioid abuse among enrollees into methadone maintenance treatment**  
C. Cleland1, A. Rosenblum1, C. Fong1, M. Parrino2, S. Magura3,1,  
1National Development and Research Institutes, Inc., New York, NY,  
2American Association for the Treatment of Opioid Dependence, New York, NY,  
3Western Michigan University, Kalamazoo, MI

4:45  **Medical examiner methadone-related drug deaths: Single vs polydrug abuse**  
M. J. Wunsch1, P. A. Nuzzo1, G. Behonick2, S. L. Walsh1,  
1Behavioral Sciences, Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY,  
2Forensic Toxicology, University of Massachusetts, Worcester, MA

5:00  **Age and its relationship with cause of death among opiate users**  
T. Clausen1, H. Waal1, M. Gossop2,1,  
1Norwegian Centre for Addiction Research, University of Oslo, Oslo, Norway,  
2National Addiction Centre, Maudsley Hospital/Institute of Psychiatry, Kings College, London, United Kingdom

---

**Primm-Singleton Travel Awardees Meeting**

**AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS (ASPET)**

**Genoa**

**ASPET MIXER**

**Poolside Terrace**

**6:30 - 8:00 PM**
Workshop I  

PONDEROSA B  
8:00 - 10:00 PM  

INTERVENTIONS FOR PARENTS WITH SUBSTANCE USE DISORDERS: NEW FINDINGS FROM CLINICAL RESEARCH

Chair: Nancy Suchman

*Fathers too! A parent-intervention for drug-abusing men*
  Thomas McMahon, Yale Child Study Center, Yale University School of Medicine, West Haven, CT

*Project SUPPORT: A parenting intervention for mothers in drug treatment*
  Mary-Louise Kerwin, Rowan University and Treatment Research Institute, Glassboro, NJ

*Learning sobriety together for substance-abusing women: Effects on children’s adjustment*
  Michelle Kelley, Old Dominion University, Norfolk, VA

*Attachment-based program for substance-using mothers of infants and toddlers: Treatment approach, outcomes and integrity in a randomized clinical trial*
  Nancy Suchman, Yale University School of Medicine, West Haven, CT

Discussant
  Karol Kaltenbach, Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA

Workshop II  

BONANZA  
8:00 - 10:00 PM  

FIT TO BE TIED: ABUSE POTENTIAL OF ANTI-EPILEPTICS?

Chairs: Edward M. Sellers and Jack Henningfield

*Evidence for abuse of anti-epileptics*
  Edward M. Sellers, Kendle Early Phase (Toronto), Toronto, ON, Canada

*Medical need and “euphoria-related” adverse events of anti-epileptics*
  Deborah Leiderman, CNS Drug Consulting LLC, McLean, VA

*Selecting the best measures of abuse liability in human abuse liability studies: Application to anti-epileptics*
  Kerri A. Schoedel, Kendle Early Phase (Toronto), Toronto, ON, Canada

*The puzzling case of levetiracetam*
  Douglas Feltner, Pfizer Global Research and Development, Novi, MI

*Case study: Lacosamide*
  Pamela Doty, Schwarz Biosciences, Inc., Research Triangle Park, NC
Sunday, June 21, 2009

Workshop III

WHAT’S NEW AT NIDA AND NIH: A PEEK INTO THE BLACK BOX
Chair: Gerald McLaughlin

Workshop IV

LEADERSHIP IN THE MAKING: IMPACT AND INSIGHTS FROM LEADERSHIP DEVELOPMENT PROGRAMS FOR LEADERS OF ADDICTION SERVICES
Chairs: Anne-Helene Skinstad and Pamela Waters

Leadership training: A foundation for the development of a network of African-American addiction service leaders
Paula Horvatich, Virginia Commonwealth University, Richmond, VA

A retrospective study of the impact of the Southern Coast ATTC’s leadership development program
Pamela Waters, Southern Coast ATTC, Tallahassee, FL

The change leader academy: Developing change leaders for NIATx
Eldon Edmundson, Oregon Health and Science University, Portland, OR

The change leader academy: Developing change leaders for NIATx
Dennis McCarty, Oregon Health and Science University, Portland, OR

Leadership development for women and men. Any different?
Anne-Helene Skinstad, The University of Iowa, Iowa City, IA

Leaders and tradition: Native American mentors’ experience in the Mountain West ATTC leadership institute: Implications for developing culturally competent leaders in the substance abuse treatment workforce
Nancy Roget, University of Nevada, Reno, Reno, NV

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Symposium III  
UNCONTROLLED INTERSECTION: PROBLEM GAMBLING AND DRUG ABUSE

Chairs: Ken Winters and Linda B. Cottler

8:45 Overview of the association of drug abuse and pathological gambling  
Ken Winters, University of Minnesota-Fairview, Minneapolis, MN

9:05 Is level of gambling related to reductions in crack cocaine use among community-recruited female drug users?  
Linda B. Cottler, Washington University, St. Louis, MO

9:25 The Alberta leisure, lifestyle, lifecycle cohort: The first waves  
Nady El-guebay, Foothills Addiction Center, University of Calgary, Calgary, AB, Canada

Symposium IV  
DRUG WITHDRAWAL, REINFORCING EFFECTS, AND VULNERABILITY TO RELAPSE: NEW METHODS AND INSIGHTS

Chair: Lance McMahon

8:45 Withdrawal-associated increases in the relative reinforcing effects of heroin  
S. Stevens Negus, Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA

9:05 Role of withdrawal in relapse to marijuana use  
Margaret Haney, New York State Psychiatric Institute, College of Physicians and Surgeons of Columbia University, New York, NY

9:25 New methods and insights: Characterizing tobacco withdrawal and relapse vulnerability  
David Gilbert, Psychology, Southern Illinois University Carbondale, Carbondale, IL

Oral Communications 3  
PREDICTION OF ADDICTION

Chairs: Theodore Cicero and William W. Stoops

8:45 Geographic and contextual factors of prescription opioid abuse: Results from ASI-MV® Connect  
T. C. Green1, J. S. Brownstein2, S. F. Butler2, 1Yale School of Public Health, Medford, MA,  
2Inflexxion, Inc., Newton, MA

9:00 Secondhand exposure to smoked opium  
M. S. Gold1, D. M. Martin2, N. A. Graham3, B. A. Goldberger4, 1Psychiatry, University of Florida College of Medicine, Gainesville, FL, 2Drug Detection Solutions, LLC, Lansdale, PA,  
3Psychiatry, University of Florida College of Medicine, Gainesville, FL, 4Pathology, Immunology and Laboratory Medicine, University of Florida College of Medicine, Gainesville, FL

9:15 Abuse Deterrent Adjusted Measurement Model: ADAMM™  
9:30  Relative abuse potential of intravenous oxycodone, hydrocodone and morphine in non-dependent opioid abusers
    W. W. Stoops1,2, K. W. Hatton3, M. R. Lofwall1,2,4, P. A. Nuzzo1, S. L. Walsh1,2,4, 1Behavioral
Science, University of Kentucky, Lexington, KY, 2Center for Drug and Alcohol Research,
University of Kentucky, Lexington, KY, 3Anesthesiology, University of Kentucky,
Lexington, KY, 4Psychiatry, University of Kentucky, Lexington, KY

Oral Communications 4  Rose Ballroom B
8:45 - 9:45 AM

PROGRAMS AND POLICIES

Chairs: Steven Ondersma and Dennis McCarty

8:45  Evidence-based practices in substance abuse treatment: Staff familiarity, opinions, and training
    J. May1, A. Breland1, D. Farrell-Moore1, F. Taxman3, J. R. Koch2, D. Svikis2, 1Richmond
    Behavioral Health Authority, Richmond, VA, 2Virginia Commonwealth University,
    Richmond, VA, 3George Mason University, Fairfax, VA

9:00  Using coaches to develop EBP skills for providers treating patients with co-occurring mental
      health and substance use disorders
    S. Larkins, T. E. Freese, S. Cousins, R. Rawson, Integrated Substance Abuse Programs,
    University of California, Los Angeles, Los Angeles, CA

9:15  Educating addiction providers to use the NIATx Process Improvement Model to enhance client
      services
    A. Pulvermacher1, T. Zastowny2, E. Edmundson3, L. Madden4,5, J. H. Ford1, D. H. Gustafson1,
    D. McCarty3, 1University of Wisconsin - Madison, Madison, WI, 2University of Rochester,
    Rochester, NY, 3Oregon Health and Science University, Portland, OR, 4APT Foundation, New
    Haven, CT, 5Yale University, New Haven, CT

9:30  Implementation of medication-assisted treatment in Maine and Missouri: The Advancing
      Recovery program
    D. McCarty1, D. Brucker2, M. Hile3, T. Morris4, L. Frazier2, A. Abraham5, T. Molfenter7,
    L. Schmidt6, P. Roman5, 1Oregon Health and Science University, Portland, OR, 2Maine Office
    of Substance Abuse, Augusta, ME, 3Missouri Institute of Mental Health, St Louis, MO,
    4Division of Alcohol and Drug Abuse, Missouri Dept of Mental Health, Springfield, MO,
    5Institute for Behavioral Research, University of Georgia, Athens, GA, 6Institute for Health
    Policy Studies, University of California, San Francisco, CA, 7NIATx, University of Wisconsin,
    Madison, WI

Symposium V  Ponderosa B
10:00 AM - 12:00 PM

SPECIAL SYMPOSIUM HONORING THE MEMORY OF
BILLY MARTIN, PHD
HOT TOPICS IN CANNABINOID RESEARCH:
FROM CHEMISTRY TO THE CLINIC

Chair: Mary Abood

10:00  Introduction
    Louis Harris, Virginia Commonwealth University, Richmond, VA

10:20  Pieces of a cannabinoid puzzle: CB1-selective agonists with antagonist structures
    Jenny Wiley, Virginia Commonwealth University, Richmond, VA
10:40 Ligand-assisted protein structure: Studies on the endocannabinoid proteins
Alexandros Makriyannis, Northeastern University, Boston, MA

11:00 The enzymatic regulation of endocannabinoid signaling
Benjamin Cravatt, The Scripps Research Institute, La Jolla, CA

11:20 Treating addictive disorders by modulation of endogenous systems
Charles O’Brien, Center for Studies of Addiction, University of Pennsylvania, Philadelphia, PA

11:40 Discussants
Mary Abood1, Louis Harris2, 1Temple University School of Medicine, Philadelphia, PA,
2Virginia Commonwealth University, Richmond, VA

Oral Communications 5

RISKY BUSINESS: HIV/AIDS AND BEHAVIOR

Sunday, June 22, 2009

10:00 HIV transmission risk behaviors among opioid-dependent HIV-infected individuals entering integrated buprenorphine and HIV care
A. A. Chaudhry1, M. Botsko2, L. Weiss3, J. Egan3, J. Mitty5, B. Estrada4, G. Lucas1,
T. Woodson1, T. Flanigan3, D. Fiellin2, 1Medicine, Johns Hopkins University, Baltimore, MD,
2Medicine, Yale University, New Haven, CT, 3New York Academy of Medicine, New York, NY,
4Impact Consultants, Tuscon, AZ, 5Medicine, Brown University, Providence, RI

10:15 Development of injection HIV risk behaviors in adolescents followed into young adulthood
C. Hopfer1, H. Gelhorn1, T. Crowley1, M. Stallings2, S. Young2, J. Hewitt2, 1University of Colorado, Aurora, CO, 2Institute for Behavior Genetics, University of Colorado Boulder, Boulder, CO

10:30 Relationship influence and HIV risk behavior among re-entering women offenders
M. Staton-Tindall1, L. Frisman2, H. Lin2, C. Leukefeld1, C. Oser1, J. Havens1, M. Prendergast3,
H. Surratt4, J. Clarke5, 1University of Kentucky, Lexington, KY, 2Connecticut Department of Mental Hospital and Addiction Services, Hartford, CT, 3University of California, Los Angeles, CA, 4University of Delaware, Wilmington, DE, 5Brown University, Providence, RI

10:45 The impact of gender and other baseline characteristics on AIDS risk perception ratings
S. King1, B. Brown2, R. Schwartz3, K. O’Grady3, E. C. Katz4, 1Friends Research Inst., Baltimore, MD, 2Univ. of North Carolina, Wilmington, NC, 3Univ. of Maryland, College Park, MD, 4Psychology, Towson University, Towson, MD

11:00 Gender differences in HIV risk behaviors among drug abusers
A. Brooks1, C. Meade2, J. Potter3, Y. Lokhnygina1, D. Calsyn4, S. Greenfield3, 1University of Arizona, Tucson, AZ, 2McLean Hospital, Belmont, MA, 3Duke University, Durham, NC,
4University of Washington, Seattle, WA

11:15 Interventions to reduce HIV risk and drug use among heterosexual methamphetamine users: Preliminary results from a pilot study
K. F. Corsi1, W. K. Lehman1, R. E. Booth1, S. Shoptaw2, 1Psychiatry, University of Colorado Denver, Denver, CO, 2Family Medicine and Psychiatry, David Geffen School of Medicine at University of California, Los Angeles, CA

11:30 Predictors of alcohol- and/or drug-related consensual and unwanted sexual encounters
D. Tzall, E. C. Katz, Psychology, Towson University, Towson, MD
Oral Communications 6

SPINNING THE WHEELS OF CRIMINAL JUSTICE

 Chairs: Carl G. Leukefeld and Jennifer R. Havens

10:00 Criminalization of addiction and mental illness: Do not pass go, go directly to jail
R. Crecelius1,2, A. Ben Abdallah1, C. W. Striley1, C. O’Leary1, L. B. Cottler1, 1Epidemiology and Prevention Research Group, Washington University School of Medicine, St. Louis, MO, 2Division of Corrections, City of St. Louis, St. Louis, MO

10:15 Substance use, posttraumatic stress disorder and violent crime
E. L. Barrett, K. Mills, M. Teesson, National Drug and Alcohol Research Centre (NDARC), University of New South Wales, Sydney, NSW, Australia

10:30 Evaluation of criminal justice diversion: California’s Proposition 36

10:45 A randomized controlled trial on naltrexone implants and methadone maintenance among heroin-dependent inmates: Results 6 months after prison release
P. P. Lobmaier1,2, N. Kunøe2, M. Gossop3, H. Waal2, 1Addiction Medicine, Aker University Hospital Trust, Oslo, Norway, 2Norwegian Centre for Addiction Research, University of Oslo, Oslo, Norway, 3National Addiction Centre, Institute of Psychiatry, King’s College, London, United Kingdom

11:00 Modified TC for persons with co-occurring disorders: Meta-analysis
S. Sacks, K. McKendrick, Center for the Integration of Research and Practice, National Development and Research Institutes, Inc, New York, NY

11:15 Factors associated with hepatitis C seropositivity among incarcerated women re-entering the community
J. R. Havens1, M. Tindy1, C. Oser1, J. Mooney1, H. Knudsen1, J. Duvall1, J. Inciardi2, H. Surratt2, J. Clarke3, L. Frisman4, C. Leukefeld1, 1CDAR, University of Kentucky, Lexington, KY, 2University of Delaware, Newark, DE, 3Brown University, Providence, RI, 4University of Connecticut, Hartford, CT

11:30 Thirty-day outcomes: A randomized trial of women's relationships and HIV
C. Leukefeld1, J. Havens1, C. Oser1, M. Tindy1, H. Knudsen1, H. Palmer1, H. Surratt2, J. Clarke3, L. Frisman4, 1University of Kentucky, Lexington, KY, 2University of Delaware, Coral Gables, FL, 3Brown University, Providence, RI, 4University of Connecticut, Hartford, CT

11:45 The impact of parole officer-offender relationships on recidivism and substance use: Results from a randomized trial
A. G. Rhodes1, F. S. Taxman1, P. D. Friedmann2, 1Administration of Justice, George Mason University, Manassas, VA, 2Alpert Medical School, Brown University, Providence, RI
Oral Communications 7

A ROYAL FLUSH OF PRESCRIPTION OPIOID EPIDEMIOLOGY

Chairs: Stephen F. Butler and Kathryn A. Saulsgiver

10:00 Relative rates of prescription opioid abuse: Comparison of public health databases
S. F. Butler, J. S. Brownstein, Inflexxion, Inc, Newton, MA

10:15 The risk of developing a dependence syndrome in recent onset users of analgesic compounds
O. A. Adelaja¹, N. S. Miller², J. C. Anthony¹, ¹Epidemiology, Michigan State University, East Lansing, MI, ²Medicine, Michigan State University, East Lansing, MI

10:30 Prevalence of pain among prescription-opioid abusers
K. A. Saulsgiver, K. Dunn, S. Sigmon, S. Higgins, Psychiatry, University of Vermont, Burlington, VT

10:45 Partying on Rx: Changes in prescription drug use and mental distress in a natural history study of club drug users
S. P. Kurtz, D. J. O’Connell, H. L. Surratt, J. A. Inciardi, J. C. Weaver, N. W. Bakken, Center for Drug and Alcohol Studies, University of Delaware, Coral Gables, FL

11:00 Prescription opioid use among convicted drinking drivers
B. Brands¹,²,³, R. F. Zalcman³, R. E. Mann²,³, G. Stoduto², R. K. Thomas², ¹Office of Research and Surveillance, Health Canada, Ottawa, ON, Canada, ²Centre for Addiction and Mental Health, Toronto, ON, Canada, ³University of Toronto, Toronto, ON, Canada

11:15 Gender differences in prescription opioid dependence: A pilot study
S. E. Back, K. T. Brady, Z. B. Stroud, Psychiatry, Medical University of South Carolina, Charleston, SC

11:30 Motives for non-medical prescription opioid use among RADARS® System College Survey respondents—indication of a substance abuse disorder?
A. Montoya¹, L. M. Zolot¹, J. E. Bailey¹, R. C. Dart¹,², ¹Rocky Mountain Poison and Drug Center, Denver Health, Denver, CO, ²University of Colorado, School of Medicine, Aurora, CO

11:45 Randomized, double-blind trial evaluating buprenorphine taper for prescription opioid abuse
S. C. Sigmon¹,², K. Dunn², K. Saulsgiver¹, S. Heil¹,², S. Higgins¹,², ¹Psychiatry, University of Vermont, Burlington, VT, ²Psychology, University of Vermont, Burlington, VT

POSTER SESSION I (Lunch)

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

Set-up time begins Sunday no earlier than 12:00 PM
Must be removed by Monday no later than 2:30 PM

ADOLESCENCE

1 Waking at night to smoke in adolescent and adult smokers
M. E. Mooney, A. J. Oliver, D. K. Hatsukami, Psychiatry, University of Minnesota, Minneapolis, MN

2 Sustained attention is related to treatment outcomes for adolescent cigarette smokers
C. Collins, K. Leraas, S. Fields, S. Imhoff, B. Reynolds, Nationwide Childrens Hospital, Columbus, OH
3 Characteristics of adolescent marijuana smokers: Endorsing the need, and willing to participate in a MJ quit program  
   A. Sheer¹, C. Collins¹, D. Gorelick¹, J. Schroeder¹, E. Moolchan², ¹NIDA/NIH, Baltimore, MD, ²Alkermes, Inc., Cambridge, MA

4 Delivering prevention for alcohol and cannabis over the Internet  
   N. C. Newton¹, M. Teesson¹, G. Andrews², L. E. Vogl¹, ¹National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia, ²Clinical Research Unit for Anxiety and Depression, University of New South Wales, Sydney, NSW, Australia

5 Disinhibition and reward sensitivity in relation to alcohol consumption by university undergraduates  
   M. Lyvers, C. Czerczyk, A. Follent, P. Lodge, H. Duff, Psychology, Bond University, Gold Coast, QLD, Australia

6 Crack cocaine use among Montreal street youth  
   C. Paquette¹, É. Roy¹, G. Petit¹, ¹Toxicomanie, Université de Sherbrooke, Longueuil, QC, Canada, ²Direction de santé publique de Montréal, Montréal, QC, Canada

7 Predictors of alcohol initiation among Hispanic adolescents in Puerto Rico  
   T. D. Matos¹, R. R. Robles¹, J. C. Reyes-Pulliza², J. L. Negron-Ayala¹, J. M. Calderon¹, M. A. Cruz¹, ¹IRESA, Universidad Central del Caribe, Bayamon, PR, ²Epidemiology, School of Public Health, San Juan, PR

8 Youth drug abuse treatment and prevention needs in Jalisco, Mexico  
   O. Campollo¹, P. Sheikhattari², C. Alvarez-González¹, J. Toro¹, H. Sánchez³, F. A. Wagner², ¹Center of Studies on Alcohol and Addictions, University of Guadalajara, Guadalajara, Mexico, ²Center for Health Disparities Solutions, Morgan State University, Baltimore, MD, ³Clinica para Dejar de Fumar, Antiguo Hospital Civil de Guadalajara, Guadalajara, Mexico

9 Associated factors of non-use of drugs among children and youth in street circumstances in Brazil  
   Y. G. Moura, E. Opaleye, Z. Sanchez, C. Carlini, A. Noto, Psychobiology, UNIFESP, São Paulo, Brazil

10 Recreational use of benzydamine: A national cross-sectional survey among children and youth in street circumstances in Brazil  
    E. S. Opaleye, Z. Sanchez, Y. Moura, A. Noto, Psychobiology, UNIFESP, Sao Paulo, Brazil

11 Incidence of drug use among school adolescents in Bogotá, Colombia  
   C. Lopez-Quintero, Y. Neumark, School of Public Health, Hebrew University of Jerusalem, Jerusalem, Israel

12 Inhalant drug use among Israeli youth  
   Y. Neumark¹, R. Bar-Hamburger², ¹School of Public Health, Hebrew University of Jerusalem, Jerusalem, Israel, ²Anti-Drug Authority of Israel, Jerusalem, Israel

13 Drug market activity influence on adolescent school conduct  
   R. J. Evans, L. J. Floyd, E. Hill, W. Latimer, Mental Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD

14 Neighborhood disadvantage and substance use among adolescents  
   S. Salomonsen-Sautel¹, S. K. Mikulich-Gilbertson¹, P. D. Riggs¹, C. Thurstone², ¹University of Colorado Denver, Aurora, CO, ²Denver Health, Denver, CO
15 Troubled parents, motivated adolescents: Predicting motivation to change substance use among runaways
N. Slesnick, S. Bartle-Haring, H. Budde, A. Letcher, D. Bantchevska, R. Garren, Human Development and Family Science, The Ohio State University, Columbus, OH

16 Outreach family intervention for young out-of-treatment drug users
R. Santis\textsuperscript{1}, C. G. Hidalgo\textsuperscript{2}, A. Jaramillo\textsuperscript{2}, V. Hayden\textsuperscript{1}, A. Lasagna\textsuperscript{2}, E. Anselmo\textsuperscript{1}, M. T. Espinoza\textsuperscript{1}, T. Rodriguez\textsuperscript{1}, D. de la Paz\textsuperscript{1}, J. Salas\textsuperscript{3}, C. Quiroga\textsuperscript{1}, P. González\textsuperscript{1}, P. P. Farias\textsuperscript{1}, \textsuperscript{1}Psychiatry, Pontificia Universidad Católica de Chile, Santiago, Chile, \textsuperscript{2}School of Psychology, Pontificia Universidad Católica de Chile, Santiago, Chile

17 How does religiosity prevent substance use among adolescents?
Z. V. Sanchez, E. Opaley, Y. Moura, T. Chaves, A. Noto, S. Nappo, Psychobiology, UNIFESP, Sao Paulo, Brazil

18 Findings from a randomized clinical trial examining Assertive Continuing Care with two types of outpatient treatment for adolescents
S. H. Godley, L. Passetti, R. Funk, M. Godley, B. Garner, B. Hunter, Chestnut Health Systems, Normal, IL

19 Results from a one-session HIV risk reduction intervention in adolescents with substance use disorder
C. Thurstone\textsuperscript{1}, P. D. Riggs\textsuperscript{2}, S. K. Mikulich-Gilbertson\textsuperscript{2}, S. Salomonse-Sautel\textsuperscript{2}, C. Klein\textsuperscript{2}, \textsuperscript{1}Denver Health and Hospital Authority, Denver, CO, \textsuperscript{2}University of Colorado Denver, Aurora, CO

FOOD AND OBESITY

20 Neuroimaging of brain activation in response to food cues in obese children
E. Charboneau\textsuperscript{1,2}, A. Bauernfeind\textsuperscript{1}, E. Castellanos\textsuperscript{1}, M. S. Dietrich\textsuperscript{3}, G. Plemmons\textsuperscript{4}, S. Park\textsuperscript{5}, P. R. Martin\textsuperscript{1,2}, R. L. Cowan\textsuperscript{1,2}, \textsuperscript{1}Psychiatric Neuroimaging Program, Vanderbilt School of Medicine, Nashville, TN, \textsuperscript{2}Vanderbilt Addiction Center, Vanderbilt School of Medicine, Nashville, TN, \textsuperscript{3}Biostatistics, Vanderbilt University, Nashville, TN, \textsuperscript{4}Childhood Weight Management Clinic, Vanderbilt Children’s Hospital, Nashville, TN, \textsuperscript{5}Psychology, Vanderbilt University, Nashville, TN

21 Addiction to food: The relationship between delay discounting, obesity, and the binge eating scale
B. A. Jones, W. Bickel, R. Yi, R. Landes, D. West, Psychiatry, UAM, Little Rock, AR

22 Validation of a questionnaire for sugar addiction
M. C. Rosa\textsuperscript{2,1}, C. M. Gomes\textsuperscript{4}, S. B. Slavutzyk\textsuperscript{3}, F. H. Kessler\textsuperscript{1}, E. F. Ferreira\textsuperscript{2}, F. Pechansky\textsuperscript{1}, \textsuperscript{1}Psychiatry, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, \textsuperscript{2}Social and Preventive Dentistry, Federal University of Minas Gerais, Belo Horizonte, Brazil, \textsuperscript{3}Social and Preventive Dentistry, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, \textsuperscript{4}Psychology, Federal University of Minas Gerais, Belo Horizonte, Brazil

23 Are injection-related risk behaviors and food insecurity associated?
C. Strike\textsuperscript{1,4}, A. Sarnocinska Hart\textsuperscript{1}, S. Anstice\textsuperscript{5}, C. Wender\textsuperscript{2}, B. Lester\textsuperscript{2}, N. Scrivo\textsuperscript{3}, J. Luce\textsuperscript{1}, M. Millson\textsuperscript{4}, \textsuperscript{1}Health Systems Research and Consulting, Centre for Addiction and Mental Health, Toronto, ON, Canada, \textsuperscript{2}My Sisters’ Place, London, ON, Canada, \textsuperscript{3}AIDS Committee of London, London, ON, Canada, \textsuperscript{4}Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada, \textsuperscript{5}School of Social Work, University of Toronto, Toronto, ON, Canada
24 The use of appetite suppressant among health sciences undergraduate students in Southern Brazil
   C. Zubaran1, I. Tres2, E. C. de Toni2, R. Pereira2, K. N. Persch2, K. Foresti2, 1School of Medicine, University of Western Sydney, Sydney, NSW, Australia, 2University of Caxias do Sul, Caxias do Sul, Brazil

25 Lack of abuse potential of tesofensine in recreational stimulant users
   E. Sellers1, D. Meier2, B. Chakraborty1, P. Manniche2, K. A. Schoedel1, 1Clinical Pharmacology, Kendle Early Phase, Toronto, ON, Canada, 2NeuroSearch A/S, Ballerup, Denmark

26 Addiction to food: Potential use of 18-methoxycoronaridine to treat obesity
   O. Taraschenko, I. Maisonneuve, S. Glick, Albany Medical College, Albany, NY

27 Sugar dependence in low- vs. high-saccharin-consuming rats
   V. Yakovenko, C. D. Chapman, N. K. Dess, Occidental College, Los Angeles, CA

28 Food restriction differentially modifies the behavioral effects of the dopamine receptor agonist quinpirole in rats
   M. Baladi, C. P. France, Pharmacology, University of Texas Health Science Center, San Antonio, TX

METHYLPHENIDATE

29 Role of the dopamine receptor subtypes in the expression of the discriminative stimulus effect induced by U-50,488H or methamphetamine
   K. Yoshizawa1,2, M. Miyatake1, T. Mori1, K. Fukuda2, N. Kuzumaki1, M. Narita1, T. Suzuki1, 1Toxicology, Hoshi University School of Pharmacy and Pharmaceutical Science, Tokyo, Japan, 2Pharmaceutical Service, Chiba-Hokusoh Hospital Nippon Medical School, Chiba, Japan

30 Distinct mechanism of methamphetamine- and methylphenidate-induced dopamine-related neurotoxicity
   T. Suzuki, D. Ikegami, M. Asato, M. Narita, M. Saeki, N. Kuzumaki, M. Narita, Toxicology, Hoshi University School of Pharmacy and Pharmaceutical Science, Tokyo, Japan

31 Early methylphenidate exposure enhances cocaine self-administration but not cocaine-induced conditioned place preference in young adult rats
   S. A. Baella, C. M. Farley, M. S. Herbert, L. R. Horn, R. H. Campbell, C. A. Crawford, Psychology, California State University, San Bernardino, San Bernardino, CA

32 Effects of oral vs. intraperitoneal methylphenidate on locomotor activity and conditioned place preference in rats
   T. E. Wooters, M. Walton, M. T. Bardo, Psychology, University of Kentucky, Lexington, KY

CLUB DRUGS

33 The acute subjective effects of combined benzylpiperazine and trifluoromethylphenylpiperazine on healthy males
   B. R. Russell1, H. Lee1, R. Wan1, W. Koak1, K. Kim1, S. Govan1, R. R. Kydd2, 1School of Pharmacy, The University of Auckland, Auckland, New Zealand, 2Psychological Medicine, The University of Auckland, Auckland, New Zealand

34 The acute effects of combined benzylpiperazine and trifluoromethylphenylpiperazine on human P300 event-related potentials
   H. Lee1, R. R. Kydd2, B. R. Russell1, 1School of Pharmacy, The University of Auckland, Auckland, New Zealand, 2Psychological Medicine, The University of Auckland, Auckland, New Zealand
Acute effects of benzylpiperazine on cognition and executive functioning using functional magnetic resonance imaging using the Stroop paradigm-results from the pilot study
L. E. Curley¹, N. Menair¹, R. R. Kydd², I. J. Kirk³, B. R. Russell¹, ¹School of Pharmacy, The University of Auckland, Auckland, New Zealand, ²Psychological Medicine, The University of Auckland, Auckland, New Zealand, ³Psychology, The University of Auckland, Auckland, New Zealand

Is moderate substance use associated with altered executive functioning in a population-based sample of young adults?
C. G. Schütz¹, F. Indlekofer², M. Piechatzek², M. Daamen³, C. Glasmacher³, R. Lieb⁴, H. Pfister⁴, O. Tucha⁵, K. W. Lange⁶, H. U. Wittchen⁷, ¹Institute of Mental Health, University of British Columbia, Vancouver, BC, Canada, ²Psychiatry, Ludwig-Maximilians-University, Munich, Germany, ³Max-Planck-Institute for Psychiatry, Munich, Germany, ⁴Radiology, University of Bonn, Bonn, Germany, ⁵School of Psychology, University Plymouth, Plymouth, United Kingdom, ⁶Experimetal Psychology, University of Regensburg, Regensburg, Germany, ⁷Psychiatry, University of Dresden, Dresden, Germany

Effects of methamphetamine and MDMA on speech
G. F. Marrone¹,², J. S. Pardo²,³, R. M. Krauss², C. L. Hart¹,², ¹College of Physicians and Surgeons of Columbia University, NY State Psychiatric Institute, New York, NY, ²Columbia University, New York, NY, ³Barnard College, New York, NY

Effects of 3,4-methylenedioxymethamphetamine on arginine vasopressin in healthy volunteers
M. J. Baggott¹,², J. Mendelson¹, K. J. Garrison¹, G. P. Galloway³, ¹Addiction Pharmacology, California Pacific Medical Center Research Institute, San Francisco, CA, ²Hellen Wills Neuroscience Institute, University of California Berkeley, Berkeley, CA

Thermoregulatory and behavioral effects of MDMA in Flinders Sensitive Line rats
E. J. Jaehne, I. Majumder, A. Salem, R. J. Irvine, Discipline of Pharmacology, School of Medical Sciences, University of Adelaide, Adelaide, SA, Australia

MDMA reduces serotonin transporter cell surface expression via a p38MAP- kinase-independent mechanism
B. M. Kivell, P. Bosch, B. Lake, D. Day, S. Schenk, J. H. Miller, Victoria University of Wellington, Wellington, New Zealand

Repeated methamphetamine alters prefrontal cortex neurotransmission
K. D. Lominac¹,², K. K. Szumlinski¹,², ¹Psychology, University of California, Santa Barbara, Santa Barbara, CA, ²Neuroscience Research Institute, University of California, Santa Barbara, Santa Barbara, CA

Effects of (-)-trans-PAT, a novel 5-HT2C agonist and 5-HT2A/2B antagonist/inverse agonist, on amphetamine-induced locomotor activity in rats
D. Morgan¹, J. P. DuPree¹, Z. Sun², R. G. Booth², ¹Psychiatry, University of Florida College of Medicine, Gainesville, FL, ²Medicinal Chemistry, University of Florida College of Pharmacy, Gainesville, FL

Chronic antagonism of 5-HT2C receptors enhance drug-seeking behavior in rats trained to self-administer methamphetamine
S. M. Graves¹,², T. C. Napier¹,², ¹Pharmacology, Rush University Medical Center, Chicago, IL, ²Center for Compulsive Behavior and Addiction, Rush University Medical Center, Chicago, IL
44 Lobeline potentiates the methamphetamine-induced decrease in extracellular DOPAC in the nucleus accumbens shell
   N. M. Neugebauer1,2, M. T. Bardo2, L. P. Dwoskin3, 1Psychiatry, Yale University School of Medicine, New Haven, CT, 2Psychology, University of Kentucky, Lexington, KY, 3College of Pharmacy, University of Kentucky, Lexington, KY

45 Identification of “agonist” and “antagonist” allosteric modulators of amphetamine-induced dopamine release
   R. B. Rothman1, S. Ananthan2, C. M. Dersch1, J. S. Partilla1, 1Clinical Psychopharmacology Section, IRP, NIDA, NIH, Baltimore, MD, 2Organic Chemistry Department, Southern Research Institute, Birmingham, AL

46 Behavioral-stimulant and neurochemical effects of monoamine releasers with varying selectivity for dopamine and serotonin in squirrel monkeys
   H. L. Kimmel1,2, D. F. Manvich2, M. Zhou2, M. E. Pontell2, B. E. Blough3, L. L. Howell1,2,4, 1Pharmacology, Emory University School of Medicine, Atlanta, GA, 2Yerkes National Primate Research Center, Emory University, Atlanta, GA, 3Center for Organic and Medicinal Chemistry, RTI International, Research Triangle Park, NC, 4Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA

47 Sigma antagonists, AC927 and CM156, protect against methamphetamine-induced serotonin depletion while attenuating hyperthermia
   M. J. Seminerio1, N. Kaushal1, J. Shaikh1, M. Medina1, A. Coop2, C. McCurdy3, R. Matsumoto1, 1West Virginia University, Morgantown, WV, 2University of Maryland, Baltimore, MD, 3University of Mississippi, Oxford, MS

48 Response to novelty predicts both responding for a visual stimulus and self-administration of a low dose of methamphetamine in rats
   A. M. Gancarz, M. A. San George, L. Ashrafioun, A. C. Thompson, J. B. Richards, Psychology and Research Institute on Addictions, University at Buffalo, Buffalo, NY

49 Methamphetamine impairs sexually conditioned approach in male Japanese quail
   B. L. Bolin, C. K. Akins, Psychology, University of Kentucky, Lexington, KY

50 Valproic acid attenuates acute amphetamine-induced locomotion in mice
   N. Enman, J. S. Miller, E. M. Unterwald, Pharmacology and Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA

51 Reinstatement of amphetamine self-administration by MDMA and its isomers in rhesus monkeys
   J. C. McClung1, L. L. Howell1,2, 1Yerkes National Primate Research Center, Emory University, Atlanta, GA, 2Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA

OPIODS: ANIMALS

52 Strain- and heroin-induced effects on endogenous opioid and GABA A receptor mRNA levels in the caudate putamen of C57BL/6J and 129P3/J mice
   S. D. Schlussman, O. Levrany, Y. Zhang, A. Ho, M. J. Kreek, The Laboratory of the Biology of Addictive Diseases, The Rockefeller University, New York, NY

53 Partial ablation of mu-opioid receptor-rich striosomes results in behavioral deficits on a motor skill learning task
   C. Lawhorn1,2, D. M. Smith3, L. L. Brown2,3, 1Laboratory of the Biology of Addictive Diseases, Rockefeller University, New York, NY, 2Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Bronx, NY, 3Saul R. Korey Department of Neurology, Albert Einstein College of Medicine, Bronx, NY
54 *Suppression of dopamine-related side effects of morphine by atypical antipsychotic drugs including a dopamine system stabilizer*
K. Torigoe¹, M. Narita¹, D. Takei¹, M. Shiokawa¹,², Y. Matsushima¹, S. Takagi¹, M. Narita¹, T. Suzuki¹, T. Amano¹,³, N. Kuzumaki¹, T. Suzuki¹, ¹Toxicology, Hoshi Univ. Sch. Pharm. Pharmaceut. Sci., Tokyo, Japan, ²Pharmacy, St. Luke's International Hospital, Tokyo, Japan, ³Molecular and Pharmacological Neuroscience, Division of Integrated Medical Science, Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan

55 *Therapeutic implications of delta opioid receptor expression in the VTA of EtOH-drinking or morphine-injected Lewis rats*
J. M. Mitchell¹,², H. L. Fields¹,², A. R. Coker¹, J. R. Driscoll¹, E. B. Margolis¹, ¹Ernest Gallo Clinic and Research Center, Emeryville, CA, ²University of California, San Francisco, CA

56 *Intravenous self-administration of etonitazene alone and combined with cocaine in rhesus monkeys: Comparison with heroin and antagonism by naltrexone and naloxonazine*
C. Achat-Mendes, G. R. Valdez, D. M. Platt, J. K. Rowlett, R. D. Spealman, Harvard Medical School, Southborough, MA

**GENETICS**

57 *Ethnic diversity of OPRM1 gene promoter DNA methylation and its association with subjects in methadone treatment*
D. A. Nielsen²,¹, S. Hamon³, V. Yuferov¹, C. Jackson¹, A. Ho¹, J. Ott³, M. J. Kreek¹, ¹The Laboratory of the Biology of Addictive Diseases, The Rockefeller University, New York, NY, ²Menninger Department of Psychiatry and Behavioral Sciences, Baylor College of Medicine, Houston, TX, ³The Laboratory of Statistical Genetics, The Rockefeller University, New York, NY

58 *Difference in allelic frequency in two ethnic groups and analysis of possible association of the 830 bp indel polymorphism in the OPRK1 promoter with cocaine and/or alcohol dependence*
V. Yuferov¹, S. Hamon², O. Levran¹, A. Ho¹, J. Ott³, M. J. Kreek¹, ¹The Laboratory of the Biology of Addictive Diseases, The Rockefeller University, New York, NY, ²Laboratory of Statistical Genetics, The Rockefeller University, New York, NY

59 *CM156, a novel antagonist of σ receptors, attenuates cocaine-induced conditioned place preference: Behavioral evaluations and molecular analysis*
Y. Xu¹, M. Elliott¹, J. Shaikh¹, C. R. McCurdy², R. R. Matsumoto¹,², ¹Basic Pharmaceutical Sciences, West Virginia University, Morgantown, WV, ²School of Pharmacy, The University of Mississippi, University, MS

60 *Alpha-2A adrenoceptors play a role in behavioral flexibility in mice, but are not required for improvements caused by atomoxetine*
A. S. James¹, C. A. Jairl¹, E. Seu¹, J. Jentsch¹,², ¹Psychology, University of California, Los Angeles, CA, ²Psychiatry and Biobehavioral Science, University of California, Los Angeles, CA

61 *The special case of the mu opioid receptor and the evolution of the opioid receptor family*
C. W. Stevens, Pharmacology and Physiology, Oklahoma State University Center for Health Sciences, Tulsa, OK

**DRUG INTERACTIONS/POLYDRUG ABUSE**

62 *Changes in cigarette use among cocaine abusers in a pharmacologic treatment trial*
L. R. Rothenberg², D. J. Brooks², D. Feldman², A. Bisaga¹,², J. Mariani¹,², F. R. Levin¹,², ¹Psychiatry, Columbia University, New York, NY, ²Substance Abuse, New York State Psychiatric Institute, New York, NY
Effects of acute oral caffeine pretreatment on response to intravenous nicotine and cocaine in stimulant users
M. W. Johnson, E. C. Strain, R. R. Griffiths, Behavioral Pharmacology Research Unit, Johns Hopkins University School of Medicine, Baltimore, MD

The relationship between nicotine use and opioid-dependence treatment during the early phase of primary care buprenorphine stabilization
B. R. Bryan¹, E. W. Gunderson², S. K. Vosburg¹, G. Perez¹, L. Archibald¹, F. R. Levin¹, ¹Division on Substance Abuse, Columbia University New York State Psychiatric Institute, New York, NY, ²Psychiatry and Neurobehavioral Sciences Department of Medicine, University of Virginia, Charlottesville, VA

Mu-opioid receptors on red blood cells of cocaine users
D. Gorelick¹, A. Zeiger², P. Matthews², J. Slock¹, K. Preston¹, J. Frost³, ¹NIDA IRP, Baltimore, MD, ²Thomas Jefferson University, Philadelphia, PA, ³Johns Hopkins University, Baltimore, MD

Effects of verapamil and diltiazem in methadone-maintained humans under a naloxone novel-response discrimination procedure
A. Oliveto¹, M. J. Mancino¹, C. Cargile¹, W. B. Gentry², ¹Psychiatry, University of Arkansas Medical School, Little Rock, AR, ²Anesthesiology, Pharmacology and Toxicology, University of Arkansas Medical School, Little Rock, AR

Coping styles of substance abusers seeking organ transplantation
H. Newville¹, D. L. Haller², ³, M. C. Acosta⁴, ³, ¹Psychology, Ferkauf Graduate School of Psychology, Yeshiva University, Bronx, NY, New York, NY, ²Psychiatry, St. Luke’s-Roosevelt, New York, NY, ³Psychiatry, Columbia University, New York, NY

Acceptability of an MI-based telephone intervention for substance-abusing transplant patients
M. C. Acosta¹, D. L. Haller¹, ²Psychiatry, St. Luke’s-Roosevelt, New York, NY, ²Psychiatry, Columbia University, New York, NY

Longitudinal patterns and correlates of smoking in formerly polysubstance-dependent individuals
A. B. Laudet, Center for the Study of Addictions and Recovery, NDRI, New York, NY

Cocaine dependence and concurrent marijuana use: A comparison of clinical characteristics
J. A. Lindsay¹, J. M. Schmitz¹, A. L. Stotts¹, C. Green¹, D. Herin², ¹Psychiatry and Behavioral Sciences, University of Texas Health Science Center at Houston, Houston, TX, ²Psychiatry, University of Minnesota, Minneapolis, MN

The effect of teacher-rated attention-concentration problems in grades 1 through 6 on latent class growth trajectories of hallucinogens, ecstasy/MDMA, ketamine, sedatives, amphetamines/stimulants, analgesics, tranquilizers, inhalants, cocaine, and heroin for females aged 19-20
V. J. Tsamis¹, ², N. Ialongo¹, G. Rebok¹, S. Kellam¹, ¹Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²Psychology, Stevenson University, Stevenson, MD

The relationship between increased exercise and reduced substance use
M. J. Dennis¹, M. L. Dennis², ¹Heartland Community College, Normal, IL, ²GAIN Coordinating Center, Chestnut Health Systems, Normal, IL

Assignment of involuntary payees in a voluntary money management intervention
M. I. Rosen¹,², K. Ablondi¹,², A. C. Black¹,², B. J. Rounsaville¹,², R. A. Rosenheck²,¹, ¹Psychiatry, Yale University School of Medicine, New Haven, CT, ²Psychiatry, VA Connecticut Healthcare System, West Haven, CT
74 Predictors of job-seeking behaviors
A. A. Forcehimes¹, J. M. Houck¹, M. P. Bogenschutz¹, D. Svikis², K. Foley³, ¹CASAA, University of New Mexico, Albuquerque, NM, ²Virginia Commonwealth University, Richmond, VA, ³Na’Nizhoozhi Center Inc., Gallup, NM

75 Longitudinal changes in attachment, social support, parenting attitudes, and psychological functioning among women drug abusers
E. Hall, M. Prendergast, U. Warda, N. Messina, E. Nelson, L. Gregorio, C. Gonzalez, University of California, Los Angeles, CA

76 Congruence of self-reported drug use with urine toxicology screening in a substance abuse treatment population
R. C. Desmond¹, B. Brands²,³, B. Rush¹,³, ¹Centre for Addiction and Mental Health, Toronto, ON, Canada, ²Health Canada, Ottawa, ON, Canada, ³University of Toronto, Toronto, ON, Canada

GENDER/SEX DIFFERENCES

77 Sources of income for chronic drug users
C. B. McCoy, M. Comerford, Epidemiology and Public Health, University of Miami, Miami, FL

78 Comparing group process in the single-gender Women’s Recovery Group versus mixed-gender Group Drug Counseling
S. F. Greenfield¹,², L. E. Kuper¹, A. M. Cummings¹, R. Gallop³, ¹McLean Hospital, Belmont, MA, ²Psychiatry, Harvard Medical School, Boston, MA, ³West Chester University, West Chester, PA

79 Gender differences in physical/sexual abuse in outpatients with SUDs: Correlates with medical and psychiatric symptoms
L. Islam¹, A. Sepulveda¹, A. Alvanzo², L. Keyser-Marcus¹, T. Rieckman³, M. Stitzer³, D. Svikis¹, ¹Psychology, Virginia Commonwealth University, Richmond, VA, ²Psychiatry & Medicine, Johns Hopkins, Baltimore, MD, ³Public Health, Oregon Health and Science University, Portland, OR

80 Characteristics of clients with co-occurring disorders in addiction treatment: A comparison by gender
L. Mangrum, Addiction Research Institute, University of Texas Health Science Center Houston, Austin, TX

81 Gender differences in suicidal ideation and opioid-use disorder among non-medical opioid users with lifetime major depression
S. J. Kuramoto¹, H. D. Chilcoat¹,², J. Ko¹, S. S. Martins¹, ¹Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²GlaxoSmithKline WorldWide Epidemiology, GlaxoSmithKline, Research Triangle Park, NC

82 Gender differences in situational activities associated with heroin and cocaine use among methadone-maintained outpatients
A. Mitola, D. Epstein, J. Willner-Reid, K. L. Preston, National Institute on Drug Abuse, Intramural Research Program, Baltimore, MD

83 Gender differences at presentation for treatment-seeking opiate dependence
L. Haynes¹, A. Walquist¹, R. Carter¹, S. Back¹, M. Hillhouse², ¹Medical University of South Carolina, Charleston, SC, ²University of California, Los Angeles, CA
84 Examination of social contextual variables as risk factors in the relationship between gender and crack/cocaine
   E. K. Reynolds1, C. E. Kopetz1, S. B. Daughters2, C. W. Lejuez1, 1Psychology, University of Maryland, College Park, MD, 2School of Public Health, University of Maryland, College Park, MD

85 An investigation of the gender-specific relationship between childhood trauma and low distress tolerance among low-income minority substance users
   T. Geiger, S. B. Daughters, M. A. Bornovalova, C. W. Lejuez, University of Maryland, College Park, MD

86 Males, females, recent-onset drug dependence, and psychological distress: Epidemiological evidence from the United States, 2006
   M. Radovanovic1,2, J. C. Anthony1, 1Epidemiology, Michigan State University, East Lansing, MI, 2Psychiatric Office Rudnik, Ljubljana, Slovenia

87 Gender differences in patterns of alcohol dependence symptoms: Evidence from a latent empirical approach
   J. Ko1, S. Martins1, S. Kuramoto1, H. Chilcoart1, 1Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 2GlaxoSmithKline WorldWide Epidemiology, GlaxoSmithKline, Research Triangle Park, NC

88 Gender differences in past month marijuana use between individual and team sport participants among 10th graders: United States, 2006
   O. J. Santiago1, C. F. Rios-Bedoya2, D. L. Feltz1, F. A. Fiestas1, 1Kinesiology, Michigan State University, East Lansing, MI, 2Family Medicine, Michigan State University, East Lansing, MI, 3Epidemiology, Michigan State University, East Lansing, MI

89 Gender differences in tobacco use and smoking risk factors among Spanish adolescents
   O. García-Rodríguez1, R. Suárez Vázquez2, L. Ciller Valverde2, 1University of Barcelona, Barcelona, Spain, 2Health Promotion Studies Center (CEPS), Barcelona, Spain

90 Male-female differences in tobacco dependence experiences: Epidemiological evidence from the United States, 2006
   M. M. Catacora, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI

91 Sex differences in response to intravenous nicotine in smokers
   M. Sofuoglu1, M. Mooney2, 1Yale University, West Haven, CT, 2Psychiatry, University of Minnesota, Minneapolis, MN

92 Basal and cocaine-induced sex differences in the DARPP-32 pathway
   L. Zhou1,2,3, W. Sun1,3, A. Nazarian1,3, S. Jenab1,3, V. Quinones-Jenab1,3, 1Psychology, Hunter College of City University of New York, New York, NY, 2Biology, Hunter College of City University of New York, New York, NY, 3Graduate Center of City University of New York, New York, NY

93 Sex differences in approach-avoidance behavior in the runway model of cocaine self-administration
   Z. Su, K. A. Kersterer, D. Guzman, T. Kippin, A. Ettenberg, Psychology, University of California-Santa Barbara, Santa Barbara, CA

94 The effects of allopregnanolone on cocaine self-administration under a progressive-ratio schedule in female rats
   N. Holtz, J. Anker, M. Carroll, University of Minnesota, Minneapolis, MN

95 Antinociceptive and motoric effects of i.c.v. THC in male vs. female rats
   A. A. Wakley, R. M. Craft, Psychology, Washington State University, Pullman, WA
PAIN

96 *Pain-elicited and -suppressed behaviors in CB1 knockout mice and their wild-type littermates: Effects of morphine*

97 *Estrous cycle effects on physiological responses to pain in formalin- and carrageenan-induced inflammation*
N. J. Amador1,2, K. Y. Shivers1,2, D. Hunter1,2, S. Jenab1,2, V. Quinones-Jenab1,2, 1BioPsychology, CUNY Graduate School and University Center, New York, NY, 2Psychology, Hunter College, New York, NY

98 *Estrogen’s antihyperalgesic effects in paw tissue of ovariectomized rats during carrageenan-induced inflammation*
K. Y. Shivers1,2, L. C. Abrams1,2, T. Mathew1,2, D. Hunter1,2, G. Barr1,2, S. Jenab1,2, V. Quinones-Jenab1,2, 1Psychology, The Graduate School and University Center, City University of New York, New York, NY, 2Biopsychology and Behavioral Neuroscience Subprogram, Hunter College City University of New York, New York, NY

99 *Estrogen increases behavioral responses to carrageenan-induced inflammation in ovariectomized mice*
L. Abrams1,2, K. Y. Shivers1,2, N. J. Amador1,2, T. Mathew1,2, D. Hunter1,2, G. Barr1,2, S. Jenab1,2, V. Quinones-Jenab1,2, 1Psychology, Hunter College, City University of New York, New York, NY, 2Psychology, The Graduate Center, City University of New York, New York, NY

100 *Mu/delta opioid agonist interactions in an assay of capsaicin-induced thermal alldynia in rhesus monkeys*
S. S. Negus1, J. E. Folk2, K. C. Rice2, 1Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA, 2Chemical Biology Research Branch, NIDA/NIAAA, Rockville, MD

101 *A bivalent ligand (MDAN-21) containing μ-agonist and δ-antagonist pharmacophores is devoid of significant physical dependence capacity in rats*
M. D. Aceto1, P. S. Portoghese2, E. Akgun2, L. S. Harris1, 1Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA, 2Medicinal Chemistry, University of Minnesota, Minneapolis, MN

102 *Phase II study of the safety and tolerability of niacin combined with oxycodone HCl 5mg vs. oxycodone HCl 5mg alone in healthy adult subjects*
D. Freeland1, R. Spivey2, R. Colucci3, 1Bee Caves Family Practice, Austin, TX, 2Acura Pharmaceuticals, Inc., Palatine, IL, 3Colucci and Assoc., LLC, Newtown, CT

103 *ACUROX® (Oxycodone HCl/Niacin) tablets for the treatment of acute, moderate to severe pain following bunionectomy surgery in adult patients*
S. Daniels1, R. Spivey2, B. Colucci1, 1Premier Research Group Ltd, Austin, TX, 2Acura Pharmaceuticals, Inc., Palatine, IL, 3Colucci and Assoc., LLC, Newtown, CT

104 *Evaluation of plasma naltrexone concentrations resulting from use of ALO-01 (morphine sulfate extended-release with sequestered naltrexone hydrochloride) capsules for chronic pain*
F. Johnson1, D. Manning1, C. Wang1, J. Stauffer1,2, 1Alpharma Pharmaceuticals LLC, Piscataway, NJ, 2Johns Hopkins University School of Medicine, Baltimore, MD

105 *Post surgery patient-controlled analgesia in smokers and non-smokers*
C. Diederichs1, T. Roehrs1,2, M. Hyde1, M. Greenwald2, T. Roth1,2, 1Sleep Disorders and Research Center, Henry Ford Health System, Detroit, MI, 2Psychiatry and Behavioral Neuroscience, School of Medicine, Wayne State University, Detroit, MI
106 Pain assessment in patients on opioid maintenance therapy
N. A. Authier1,2,3, C. Auclair1, C. Dubray2, A. Eschalier1, P. Y. Courty1, 1Pôle de Psychiatrie - CMP B, CHU G Monpied, Clermont Ferrand, France, 2Clinical Pharmacology, INSERM CIC 501, Clermont Ferrand, France, 3Pharmacology and Toxicology, UMR INSERM 766, Clermont Ferrand, France

107 Prevalence of severe pain among methadone maintenance patients
D. Perlman1,2, C. L. Masson3, C. McKnight1, N. Pepper3, L. Coffin1, A. Morganstern3, A. Jordan1, R. Seewald1, D. C. Des Jarlais1,2, R. Portenoy1, 1Beth Israel Medical Center, New York, NY, 2NDRI, Inc., New York, NY, 3University of California, San Francisco, San Francisco, CA

108 Provider confidence recognizing opioid analgesic abuse in HIV care settings
P. Lum1, S. Little2, D. Hersh2, R. Thawley1, J. Egan1, J. Mitty4, D. Fiellin5, 1University of California, San Francisco, CA, 2San Francisco Department of Public Health, San Francisco, CA, 3New York Academy of Medicine, New York, NY, 4Brown University, Providence, RI, 5Yale University, New Haven, CT

109 An integrated intervention for chronic pain and substance use reduces opioid medication misuse
B. J. Morasco, A. Patterson, P. Benson, M. Dogra, M. P. Resnick, S. K. Dobscha, Portland VA Medical Center, Portland, OR

POLICY

110 Medicaid reimbursement for screening and brief intervention of substance abuse
H. E. Fussell, T. Rieckmann, M. Gilpin, J. Kohon, Oregon Health and Science University, Portland, OR

111 Alcohol, press and public policies in Brazil: Content analysis of newspaper and magazine stories in 2006 compared to 2003 and 2000
A. R. Noto, J. D. Silveira, F. C. Mastroianni, Psicobiologia, UNIFESP, São Paulo, Brazil

112 Adolescent tobacco initiation, use and ongoing nicotine addiction: Perspectives on a reduced nicotine content policy
S. J. Lo1, C. Collins1, J. Henningfield2, E. Moolchan3, 1NIDA/NIH, Baltimore, MD, 2Pinney Associates, Bethesda, MD, 3Alkermes, Inc., Cambridge, MA

113 Smoking cessation services in drug abuse treatment: A national study
H. K. Knudsen, J. L. Studts, Behavioral Science, University of Kentucky, Lexington, KY

114 Addressing nicotine dependence in drug treatment settings: Organizational change
J. Guydish1, D. Ziedonis2, B. Tajima1, G. Brigham4, L. Zamarelli3, 1University of California, San Francisco, San Francisco, CA, 2University of Massachusetts, Worcester, MA, 3Willamette Family, Inc, Eugene, OR, 4Maryhaven, Inc., Columbus, OH

115 Heroin purchasing is income, price and arrest-rate sensitive
J. K. Roddy1, C. L. Steinmiller2, M. K. Greenwald3, 1Social Sciences, University of Michigan Dearborn, Dearborn, MI, 2Psychiatry and Behavioral Neurosciences, Wayne State University, Detroit, MI

116 Disaster preparedness for disruptions in methadone treatment
D. Podus1, J. C. Maxwell2, 1UCLA-ISAP, Los Angeles, CA, 2University of Texas, Austin, TX

117 Adoption of medications in substance abuse treatment: Access, integration and workforce development
T. Rieckmann, M. Gholsion, D. McCarty, W. Nash, J. Kohon, H. Fussell, Public Health and Preventive Medicine, Oregon Health and Science University, Portland, OR
New York drug policies and the lived experiences of African American women in distressed households
L. C. Windsor¹, E. Dunlap², ¹School of Social Work, Rutgers: The State University of New Jersey, New Brunswick, NJ, ²National Development and Research Institutes, New York, NY

Do organizational process improvement interventions significantly change motivational interviewing knowledge, attitudes, and use by substance abuse treatment counselors?
S. Stevens Manser, D. Travis, E. Borah, R. Spence, Center for Social Work Research, Addiction Research Institute, University of Texas at Austin, Austin, TX

Assessing participation in a randomized trial evaluating improvement strategies in addiction treatment
A. Quanbeck¹, J. H. Ford¹, A. Pulvermacher¹, J. Robinson¹, A. Wheelock¹, J. McConnell², K. Hoffman², D. McCarty², D. Gustafson¹, V. Sviridova¹, J. Kadunc¹, ¹University of Wisconsin, Madison, WI, ²Oregon Health and Science University, Portland, OR

Current drug-scheduling reviews reported by the Drug Enforcement Administration
S. R. Tella, S. Ghozland, A. Sancho, C. Prioleau, S. Carr, C. Sanerud, Office of Diversion Control, Drug Enforcement Administration, Washington, DC

Drug combinations seized by law enforcement, emerging trends and undetermined effects to the unsuspecting user
T. L. Boos, L. L. Wong, S. M. Carr, C. A. Sanerud, Drug and Chemical Evaluation Section/ODE, Drug Enforcement Administration, Springfield, VA

The day treatment modality applied to patients with substance use disorders: Comparison with outpatient enhanced methadone service using a controlled, prospective matched pair-design
R. R. Kowalewski, L. Bösch, M. Schaub, R. Stohler, Division of Substance Use Disorders, Psychiatric University Hospital Zurich, Zurich, Switzerland

Characteristics and nine-month outcomes of discharged methadone maintenance clients
D. M. Coviello¹, D. A. Zanis¹², S. A. Wesnoski¹, ¹Psychiatry/Addictions, University of Pennsylvania, Philadelphia, PA, ²Social Administration, Temple University, Philadelphia, PA

Redefining retention: Three pathways for extending a treatment episode beyond a methadone program’s boundaries
S. G. Mitchell¹, R. P. Schwartz¹, H. S. Reisinger¹, J. A. Peterson¹, S. M. Kelly¹, S. Lotfi¹, M. H. Agar³, K. O’Grady², B. S. Brown¹, ¹Friends Research Institute, Baltimore, MD, ³University of Maryland, College Park, MD, ²Ethknoworks, Santa Fe, NM, ⁴University of North Carolina, Wilmington, NC

Preliminary outcomes of a behavioral treatment trial among opiate IDU in central Ukraine
J. E. Schumacher¹, K. Dumchev², O. Zezyulin², P. Slobodyanyuk², S. Chandler¹, L. Moroz³, M. Wang⁴, ¹Division of Preventive Medicine, University of Alabama at Birmingham, Birmingham, AL, ²Vinnitsya Regional Narcological Dispensary, Vinnitsya, Ukraine, ³Vinnitsya National Medical University Pirogov, Vinnitsya, Ukraine, ⁴Expert Health Data Systems, Inc., Silver Spring, MD

Preliminary functioning outcomes of a behavioral treatment trial in opiate IDU in Ukraine
K. Dumchev¹, J. Schumacher², O. Zezyulin¹, P. Slobodyanyuk¹, S. Chandler², L. Moroz², M. Wang⁴, ¹Vinnitsya Regional Narcological Dispensary, Vinnitsya, Ukraine, ²University of Alabama at Birmingham, Birmingham, AL, ³Vinnitsya National Medical University Pirogov, Vinnitsya, Ukraine, ⁴Expert Health Data Systems, Silver Spring, MD
128 The effect of treatment setting on outcome in treating opioid dependence with buprenorphine
S. Schroeder, K. Miotto, M. Hillhouse, C. Manneh, C. Domier, W. Ling, Integrated Substance
Abuse Programs, University of California, Los Angeles, Los Angeles, CA

129 Efficacy of the Manualized Cognitive-Behavioral Treatment Program CANDIS for cannabis use
disorders
A. Ruehlmann, E. Hoch, R. Noack, J. Henker, A. Pixa, H. Rohrbacher, M. Höfler,
G. Bühringer, H. U. Wittchen, Institut fuer Klinische Psychologie und Psychotherapie,
Technische Universität Dresden, Germany, Dresden, Germany

130 Effects of psychosocial treatment dose on outcomes in stimulant-dependent adults
S. Glasner-Edwards, D. Farabee, L. Brecht, R. A. Rawson, Integrated Substance Abuse
Programs, University of California, Los Angeles, CA

131 The impact of directive and non-directive drug counseling approaches as a function of patient
trait reactance
D. J. Farabee, R. Rawson, V. J. Pearce, S. J. Cousins, A. Bellows, J. Hemberg, University of
California, Los Angeles, CA

132 Medical outcomes in methamphetamine-dependent adults 3 years after treatment
L. Mooney1, S. Glasner-Edwards1, P. Marinelli-Casey1, M. Hillhouse1, A. Ang1, J. Hunter1,
W. Haning2, P. Colescott2, W. Ling1, R. Rawson1, 1University of California, Los Angeles, CA,
2University of Hawaii, Honolulu, HI

133 An analysis of substance abuse treatment outcomes between a sample of American
Indians/Alaska Natives and a comparison group
D. L. Dickerson, S. E. Spear, MS, P. Marinelli-Casey, R. A. Rawson, Ph.D., Y. Hser, Integrated
Substance Abuse Program, University of California, Los Angeles, CA

134 Emotional abuse as a risk factor for poor treatment outcome in residential substance abuse
treatment
S. M. Gorka1, M. A. Bornovalova2, K. Kochanska1, S. B. Daughters1, 1School of Public Health,
University of Maryland, College Park, MD, 2Psychology, University of Minnesota,
Minneapolis, MN

135 Outcomes of substance abuse treatment adjusting for selection bias
M. Brecht, R. Gonzales, R. Rawson, Integrated Substance Abuse Programs, University of
California, Los Angeles, CA

136 The risk and responsivity principles as moderators of drug abuse treatment outcomes: A meta-
analysis
F. S. Pearson1, M. Prendergast2, D. Podus2, L. Greenwell2, 1National Development and
Research Institutes, New York, NY, 2UCLA Integrated Substance Abuse Programs, Los
Angeles, CA

Symposium VI

PRECLINICAL STUDIES OF SEX DIFFERENCES IN
RESPONSE TO COCAINE IN ADOLESCENTS:
ARE THEY DIFFERENT FROM ADULTS?

Chairs: Cora Lee Wetherington and Jill Becker

2:00 Acquisition and maintenance of cocaine self-administration in adolescent rats: Effects of sex and
gonadal hormones
Wendy Lynch, University of Virginia, Charlottesville, VA
Monday, June 22, 2009

2:25  Adolescence and sex differences in reinstatement of drug-seeking and impulsivity for drug and non-drug rewards  
Marilyn Carroll, University of Minnesota, Minneapolis, MN

2:50  Environmental effects on cocaine reward: Sex and age matter  
Sari Izenwasser, University of Miami Miller School of Medicine, Miami, FL

3:15  Emergence of sex differences in dopamine function in adolescence  
Cynthia Kuhn, Duke University Medical Center, Durham, NC

3:40  Adolescence and sex differences in drug abuse: A synthesis  
Jill Becker, University of Michigan, Ann Arbor, MI

Symposium VII  
Ponderosa B  
2:00 - 4:00 PM

INTERNATIONAL RESEARCH PRIORITIES FOR SCALING UP EFFECTIVE INTERVENTIONS FOR DRUG USE AND DEPENDENCE

Chairs: Vladimir Poznyak (WHO) and Sharon L. Walsh

2:00  The global epidemiology of injecting drug use and HIV among people who inject drugs: What do we know?  
Louisa Degenhardt, National Drug and Alcohol Research Center, University of New South Wales, Sydney, NSW, Australia

2:25  The potential impact of scaling up effective substance abuse treatment in HIV/AIDS prevention and care  
George E. Woody, University of Pennsylvania and Treatment Research Institute, Philadelphia, PA

2:50  Pharmacotherapy for opioid dependence: Gaps in the evidence and priorities for future research  
Nicholas Clark, Management of Substance Abuse, World Health Organization (WHO), Geneva, Switzerland

3:15  Effectiveness of interventions based on WHO ASSIST package in different cultural contexts: Implications for future research  
R. Ali, School of Medical Sciences, University of Adelaide, Adelaide, SA, Australia

3:40  Discussant  
Thomas Babor, Community Medicine and Healthcare, University of Connecticut Health Center, Farmington, CT

Oral Communications 8  
Rose Ballroom B  
2:00 - 4:00 PM

NEUROPATHIC CONSEQUENCES OF ACUTE AND CHRONIC EXPOSURE

Chairs: Ratna Sircar and Shane A. Perrine

2:00  Long-term alterations of stress responsive and opioid systems in rat hypothalamus and amygdala during chronic heroin withdrawal  
Y. Zhou, J. Choi, J. Huynh, A. Ho, M. J. Kreek, Rockefeller University, New York, NY
2:15  *Gamma-hydroxybutyric acid impairs spatial memory and alters NMDA receptor subunits in adolescent female rats*  
R. Sircar¹,², A. Basak¹, L. Wu¹, K. Reddy¹, ¹Feinstein Institute for Medical Research, Manhasset, NY, ²Psychiatry and Behavioral Sciences, Albert Einstein College of Medicine, Bronx, NY

2:30  *Chronic toluene exposure differentially regulates amino acid neurotransmitters in the adolescent rat brain following acute or prolonged drug abstinence*  
S. A. Perrine¹, S. K. O’Leary-Moore¹,², M. P. Galloway¹, J. H. Hannigan², S. E. Bowen², ¹Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI, ²Psychology and OB/GYN, Wayne State University, Detroit, MI

2:45  *MDMA use is associated with increased basal ganglia-thalamocortical circuit activation during motor task performance in humans: An fMRI study*  

3:00  *Cortisol secretion profile is associated with drop-out and more persistent cocaine craving during a trial of mirtazapine for the treatment of depressed cocaine abusers*  
L. C. Sanfilippo, W. N. Raby, E. V. Nunes, Psychiatry, New York Psychiatric Institute, New York, NY

3:15  *Chronic marijuana users have decreased responsiveness to emotionally charged visual stimuli*  
M. J. Wesley, C. A. Hanlon, L. J. Porrino, Physiology and Pharmacology, Wake Forest University School of Medicine, Winston Salem, NC

3:30  *Alterations in microstructure of the isthmus in midsagittal corpus callosum is associated with duration of cocaine use in the cocaine-dependent subjects*  
L. Ma¹, K. M. Hasan², J. L. Steinberg¹, P. A. Narayana², S. D. Lane¹, E. A. Zuniga¹, ¹Psychiatry and Behavioral Sciences, University of Texas Health Science Center, Houston, TX, ²Diagnostic and Interventional Imaging, University of Texas Health Science Center, Houston, TX

3:45  *Are there cognitive sequelae to callosal damage in chronic cocaine users?*  
C. A. Hanlon, M. J. Wesley, M. C. Torrence, A. Liguori, L. J. Porrino, Physiology and Pharmacology, Wake Forest University, Winston-Salem, NC

**Oral Communications 9**

**Bonanza**

**MUSING ABOUT MU: PRECLINICAL STUDIES WITH OPIOIDS**

Chairs: Jean M. Bidlack and Pouya Tahsili-Fahadan

2:00  *Anatomical and functional interactions between chemokine and µ-opioid receptors in periaqueductal grey neurons*  
L. G. Kirby, J. Palma, S. Heinisch, Anatomy and Cell Biology and Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA

2:15  *Inhibition of Gβγ signaling to phospholipase B3 enhances antinociception mediated by the µ opioid receptor but does not affect respiration or locomotion*  
J. M. Bidlack¹, J. P. McLaughlin², ¹Pharmacology and Physiology, University of Rochester, Rochester, NY, ²Psychology, Northeastern University, Boston, MA
2:30 Opioid receptor mediation of morphine’s discriminative stimulus effects in the inbred Fischer 344 and Lewis rat strains
C. M. Davis¹, K. C. Rice², A. L. Riley¹, ¹Psychology, American University, Washington, DC, ²Drug Design and Synthesis Section, Chemical Biology Research Branch, National Institute on Drug Abuse and National Institute on Alcoholism and Alcohol Abuse, Rockville, MD

2:45 Morphine antinociception in combination with metabotropic glutamate receptor (mGluR) antagonists
D. E. Daugherty¹, L. L. Miller¹, M. J. Picker¹, L. A. Dykstra¹,², ¹Psychology, University of North Carolina at Chapel Hill, Chapel Hill, NC, ²Pharmacology, University of North Carolina at Chapel Hill, Chapel Hill, NC

3:00 Changes in mGluR5 surface expression: Comparison between repeated morphine and methamphetamine
A. A. Herrold¹,²,³, A. L. Mickiewicz¹,³,⁴, T. C. Napier¹,⁴, ¹Pharmacology, Rush University Chicago, Chicago, IL, ²Neuroscience, Loyola University Chicago, Maywood, IL, ³Pharmacology, Loyola University Chicago, Maywood, IL, ⁴Center for Compulsive Behavior and Addiction, Rush University Chicago, Chicago, IL

3:15 Modafinil blocks morphine-primed reinstatement of conditioned place preference
P. Tahsili-Fahadan¹, G. V. Carr², G. C. Harris², G. Aston-Jones¹, ¹Medical University of South Carolina, Charleston, SC, ²University of Pennsylvania, Philadelphia, PA

3:30 Assessment of individual differences in the aversive and rewarding effects of morphine
A. Verendeev, A. L. Riley, Psychopharmacology Laboratory, Psychology, American University, Washington, DC

3:45 Differential modification of the antinociceptive and discriminative stimulus effects of morphine by 5-HT1A and 5-HT2A receptor agonists in rhesus monkeys
J. Li¹, K. C. Rice³, W. Koek¹,², C. P. France¹,², ¹Pharmacology, University of Texas Health Science Center, San Antonio, TX, ²Psychiatry, University of Texas Health Science Center, San Antonio, TX, ³Chemical Biology Research Branch, NIDA and NIAAA, National Institutes of Health, Rockville, MD

Marian W. Fischman Memorial Award Lecture

Presentation of the Marian W. Fischman Memorial Award to Harriet de Wit

Introduction by Chris-Ellyn Johanson

Lecture: Determinants of drug preference in humans
Harriet de Wit

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Monday, June 22, 2009

NIDA/CPDD Pre- and Post-Doc Mixer
NETWORKING GET-TOGETHER FOR ALL STUDENTS, TRAINEES, AND MENTORS

Workshop V
15TH ANNUAL CONTINGENCY MANAGEMENT WORKING GROUP
Chairs: Stacey C. Sigmon and Kelly Dunn

Workshop VI
EVALUATING THE ABUSE POTENTIAL OF NOVEL COMPOUNDS AND ABUSE-RESISTANT FORMULATIONS
Chair: Michael A. Nader

Emerging drugs of abuse as identified by the DEA
Srihari R. Tella, Drug and Chemical Evaluation Section, Arlington, VA

The role of NIDA in the evaluation of emerging drugs of abuse
Jane B. Acri, National Institute on Drug Abuse, Bethesda, MD

Limitations of current preclinical abuse assessment strategies and possible future approaches
Patrick Beardsley, Virginia Commonwealth, Richmond, VA

Clinical research issues in the evaluation of novel compounds and formulations
John D. Roache, University of Texas Health Science Center at San Antonio, San Antonio, TX

Workshop VII
SUBSTANCE USE DISORDERS IN DSM-V: A PROGRESS REPORT
Chairs: Thomas J. Crowley and Charles O’Brien

Combining abuse with dependence
Thomas J. Crowley, University of Colorado Denver, School of Medicine, Aurora, CO

Inclusion of cannabis withdrawal and related issues
Alan Budney, University of Arkansas for Medical Sciences, Little Rock, AR

Addiction vs dependence for DSM V
Charles O’Brien, University of Pennsylvania School of Medicine, Philadelphia, PA

Consumption level as a diagnostic criterion?
Guilherme Borges, Instituto Nacional de Psiquiatria and Universidad Autonoma Metropolitana, San Lorenzo Huipulco, Mexico
Workshop VIII

FOUR PRACTICAL INTERVENTIONS TO MAKE OUTPATIENT TREATMENT ATTRACTIVE AND ACCOUNTABLE - TRANSLATIONAL RESEARCH IN THE REAL WORLD

Chair: A. Thomas McLellan and David Festinger

Concurrent recovery monitoring as a clinical activity
John Cacciola, University of Pennsylvania School of Medicine, Philadelphia, PA

Telephone counseling to support recovery following residential treatment
Deni Carise, Treatment Research Institute and University of Pennsylvania, Philadelphia, PA

Improving monitoring and evaluation in drug courts: TRI Court Evaluation Program
David Festinger, Treatment Research Institute and University of Pennsylvania, Philadelphia, PA

CRAFT: Helping families motivate loved ones to enter treatment
Kimberly C. Kirby, Treatment Research Institute and University of Pennsylvania, Philadelphia, PA

NIDA International Meeting Poster Session

Chair: Steven W. Gust

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
POSTER SESSION II (Breakfast)  
Pavilion  
8:00 - 10:00 AM  

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

Set-up time begins Monday no earlier than 3:00 PM  
Must be removed by Tuesday no later than 3:00 PM  

NICOTINE: ANIMALS  

1 Sex differences in nicotine self-administration and reinstatement in rats  
   M. W. Feltenstein, R. E. See, Neurosciences, Medical University of South Carolina,  
   Charleston, SC  

2 Enrichment-induced differences in nicotine drug discrimination in rats is nicotinic receptor-  
   mediated  
   D. J. Stairs¹, C. S. Bockman², J. Fosdick¹, B. Mittelstet¹, L. Schwarzkopf¹, ¹Psychology,  
   Creighton University, Omaha, NE, ²Pharmacology, Creighton University, Omaha, NE  

3 Effects of acute nicotine on delay discounting in rats  
   J. L. Perry, M. G. LeSage, Minneapolis Medical Research Foundation, Minneapolis, MN  

4 Nicotine conditioned place preference in adolescence differs as a function of sex  
   M. Lenoir, E. Zakharova, J. Ledon, A. Rhodes, C. Booth, S. Izenwasser, Psychiatry and  
   Behavioral Sciences, University of Miami Miller School of Medicine, Miami, FL  

5 Preweanling rats exhibit deficits in prepulse inhibition of the startle reflex when gestationally  
   exposed to nicotine  
   R. T. Lacy, C. F. Mactutus, S. B. Harrod, Psychology, University of South Carolina,  
   Columbia, SC  

6 Transfer of extinction learning for the conditioned stimulus of nicotine by nicotinic receptor  
   agonists  
   C. Reichel, J. Murray, J. Barr, S. Sanderson, M. Tracy, R. Bevins, Psychology, University of  
   Nebraska-Lincoln, Lincoln, NE  

7 Behavioral characterization of novel nicotinic receptor compounds based on the structure of  
   cytisine  
   E. M. Jutkiewicz¹, F. Sparatore², B. Tasso², J. H. Woods¹, ¹Pharmacology, University of  
   Michigan, Ann Arbor, MI, ²Pharmaceutical Sciences, University of Genoa, Genoa, Italy  

8 The effects of nicotine preexposure during peradolescence on the aversive and physiological  
   effects of alcohol in adulthood  
   J. A. Rinker¹, M. A. Hutchison¹, S. A. Chen², E. D. Singley², M. A. Heilig², A. L. Riley¹,  
   ¹Psychology, American University, Washington, DC, ²NIAAA, NIH, Bethesda, MD  

9 Involvement of the hypocretin system in the reinforcing effects of nicotine in rats  
   W. A. Corrigall¹,³, C. M. Kotz², J. L. Perry¹, J. A. Teske², M. G. LeSage¹,³, ¹Minneapolis  
   Medical Research Foundation, Minneapolis, MN, ²VA Medical Center, Minneapolis, MN,  
   ³University of Minnesota, Minneapolis, MN  

10 Nicotine and learning, from changes in behavior to cell signaling: Implications for nicotine  
    addiction  
    T. J. Gould, ¹Psychology, Temple University, Philadelphia, PA, ²Center for Substance Abuse  
    Research, Temple University, Philadelphia, PA
IMAGING

11 Differences in brain activation between marijuana smokers and non-smoking controls during a spatial navigation fMRI task
J. T. Sneider1,2, J. Rogowska1,2, S. A. Gruber1,2, D. Yurgelun-Todd1,2,3, 1Neuroimaging Center, McLean Hospital, Belmont, MA, 2Psychiatry, Harvard Medical School, Boston, MA, 3University Utah Medical School, Salt Lake City, UT

12 Dronabinol blunts drug cue reactivity in marijuana-dependent patients
M. Goldman1, R. Ehrman1,2, Z. Wang1, Y. Li1, W. Jens1, J. Hakun1, J. Suh1,2, C. P. O’Brien1,2, J. Detre1, A. R. Childress1,2, K. Kampman1, A. V. Hole1, 3Psychiatry, University of Pennsylvania, Philadelphia, PA, 2VA Medical Center, Philadelphia, PA

13 Cocaine rewards segregate neural processing underlying performance of cognitive tasks in nonhuman primates
S. Deadwyler, I. Opris, R. Hampson, Physiology and Pharmacology, Wake Forest University Health Sciences, Winston Salem, NC

14 Sex differences in the interactions between social rank and cocaine reinforcement in cynomolgus monkeys
M. A. Nader1,2, P. W. Czoty1, N. V. Riddick1, H. D. Gage2, J. R. Kaplan3, 1Physiology and Pharmacology, Wake Forest University School of Medicine, Winston-Salem, NC, 2Radiology, Wake Forest, Winston-Salem, NC, 3Pathology, Wake Forest University School of Medicine, Winston-Salem, NC

15 Does prior trauma modulate limbic brain response to aversive cues in cocaine-dependent patients?
C. A. Rudoy1, J. Suh1,2, R. Ehrman1,2, Y. Li1, Z. Wang1, W. Jens1, J. Hakun1, T. Franklin1, M. Goldman1, C. P. O’Brien1,2, A. R. Childress1,2, 1Psychiatry, University of Pennsylvania School of Medicine, Philadelphia, PA, 2VA VISN 4 MIRECC, Philadelphia, PA

16 Brain MR spectroscopy in the frontal white matter of prenatally cocaine-exposed adolescents
E. S. Bandstra1, V. Govindaraju2, G. R. Simpson1, B. C. Bowen2, V. H. Accornero1, E. Romano1, L. Xue1, C. E. Morrow1, A. Maudsley2, 1Pediatrics, University of Miami Miller School of Medicine, Miami, FL, 2Radiology, University of Miami Miller School of Medicine, Miami, FL

17 Increased neural response to lidocaine relative to procaine in healthy subjects
B. Adinoff1,2, M. D. Devous1, D. C. Cooper1, S. E. Best1,2, T. S. Harris1, M. J. Williams1, 1University of Texas Southwestern Medical Center, Dallas, TX, 2VA North Texas Health Care System, Dallas, TX

18 Neurochemical effects of citicoline treatment in methamphetamine-dependent patients: A longitudinal proton magnetic resonance spectroscopy study
I. Lyoo2, S. J. Yoon1, H. J. Kim2, J. Hwang2, Y. Sung3, N. Kim3, S. E. Lukas4, P. F. Renshaw3, 1Psychiatry, Catholic University College of Medicine, Seoul, Korea, South, 2Psychiatry, Seoul National University Hospital, Seoul, Korea, South, 3Psychiatry, University of Utah, Salt Lake City, UT, 4Behavioral Psychopharmacology Research Laboratory and Sleep Research Program, McLean Hospital, Belmont, MA

19 Neural correlates of impaired number processing in young adults with prenatal alcohol exposure
20 Reduced fractional anisotropy in human MDMA users is consistent with cortical axon loss: A 3 Tesla diffusion tensor MRI study
A. Cao, M. S. Dietrich, R. L. Cowan, Psychiatry and Radiology and Radiological Sciences, Vanderbilt University, Nashville, TN

CHEMISTRY/PHARMACOKINETICS

21 Evaluation of [3H]-SN56, a novel sigma-1 receptor radioligand
J. A. Fishback¹, C. R. McCurdy², R. R. Matsumoto¹, ¹Basic Pharmaceutical Sciences, West Virginia University, Morgantown, WV, ²Medicinal Chemistry, University of Mississippi, University, MS

22 Development of biaryl urea analogs of SB-334867 as orexin-1 receptor antagonists
Y. Zhang, S. P. Runyon, B. P. Gilmour, H. A. Navarro, B. F. Thomas, Research Triangle Institute, Research Triangle Park, NC

23 Pharmacokinetics of lisdexamfetamine dimesylate following intranasal administration
J. Ermer¹, K. Dennis¹, M. Haffey¹, W. Doll², E. Sandefer², M. Buckwalter¹, R. Page², B. Diehl¹, P. Martin¹, ¹Shire Development Inc., Wayne, PA, ²Scintipharma, Inc, Lexington, KY

24 Pharmacokinetic profile of lisdexamfetamine dimesylate after 14-day intranasal administration in dogs
M. Pennick, R. Secker, Shire Pharmaceutical Development Ltd, Basingstoke, United Kingdom

25 Pharmacokinetics of crushed intranasal Oxycontin® in non-dependent prescription opioid users
M. Lofwall¹,², D. Moody³, P. Nuzzo², W. Fang³, S. L. Walsh²,³, ¹Psychiatry, University of Kentucky, Lexington, KY, ²Behavioral Science, Center for Drug and Alcohol Research, University of Kentucky, Lexington, KY, ³Center for Human Toxicology, University of Utah, Salt Lake City, UT

26 Effect of cocaine use on buprenorphine pharmacokinetics in humans
E. F. McCance-Katz¹, P. M. Rainey², D. E. Moody³, ¹Psychiatry, University of California San Francisco, San Francisco, CA, ²Laboratory Medicine, University of Washington, Seattle, WA, ³Center for Human Toxicology, University of Utah, Salt Lake City, UT

27 Stereospecificity, or lack thereof, in human methamphetamine metabolic pathways
L. Li¹, E. Everhart², E. Fernandez², P. Jacob III², R. T. Jones², J. Mendelson¹, ¹Addiction Pharmacology, California Pacific Medical Center Research Institute, San Francisco, CA, ²Psychiatry, University of California, San Francisco, CA

AMPHETAMINE/METHAMPHETAMINE: HUMAN STUDIES

28 Predictors of cue-induced craving for methamphetamine in subjects with recent methamphetamine abuse or dependence
B. Tolliver, A. L. McRae-Clark, M. Saladin, K. L. Price, E. Chapman, K. T. Brady, Psychiatry, Medical University of South Carolina, Charleston, SC

29 Relationship between the subjective and discriminative effects of d-amphetamine: A retrospective analysis
M. M. Poole¹,², A. R. Reynolds¹, A. R. Vansickle¹,², C. R. Rush²,³, ¹Psychology, University of Kentucky, Lexington, KY, ²Behavioral Science, University of Kentucky, Lexington, KY, ³Psychiatry, University of Kentucky, Lexington, KY

30 The effects of progesterone pretreatment on the response to oral d-amphetamine: Impulsivity, mood and performance
S. C. Reed, F. R. Levin, S. M. Evans, Psychiatry, Columbia University, New York, NY

31 Cocaine choice in humans during d-amphetamine maintenance
C. R. Rush, W. W. Stoops, R. J. Sevak, L. R. Hays, University of Kentucky, Lexington, KY
32 Sustained release d-amphetamine maintenance decreases cocaine seeking in COC/heroin-dependent, buprenorphine-stabilized volunteers
   M. Greenwald, C. Steinmiller, L. Lundahl, Psychiatry, Wayne State University, Detroit, MI
33 Route of administration of methamphetamine: How impaired are swallowers?
   J. C. Maxwell1, J. K. Cunningham2, 1Addiction Research Institute, University of Texas at
   Austin, Austin, TX, 2College of Medicine, University of Arizona, Tucson, AZ
34 Cognitive distinctions between currently using and abstaining methamphetamine-dependent individuals
   C. Domier, M. Hillhouse, P. Marinelli-Casey, R. Rawson, Integrated Substance Abuse
   Programs, University of California, Los Angeles, Los Angeles, CA
35 Randomized, double-blind trial of modafinil vs placebo for methamphetamine dependence
   K. G. Heinzerling1, S. Shoptaw1,2, A. Swanson1, W. Ling2, 1Family Medicine, UCLA, Los
   Angeles, CA, 2Integrated Substance Abuse Programs, University of California, Los
   Angeles, CA
36 Predicting adherence to treatment for methamphetamine dependence from neuropsychological
   and drug use variables
   A. C. Dean1, E. D. London1,2, C. A. Sugar3, C. M. Kitchen3, A. N. Swanson4,
   K. G. Heinzerling4, A. D. Kalechstein1, S. Shoptaw4, 1Psychiatry and Biobehavior Science,
   UCLA, Los Angeles, CA, 2Molecular and Medical Pharmacology and Brain Research
   Institute, UCLA, Los Angeles, CA, 3Biostatistics, UCLA, Los Angeles, CA, 4Family Medicine
   and Psychiatry, University of California, Los Angeles, CA
37 Actively using, non-treatment-seeking men who have sex with men can be successfully enrolled
   and retained in pharmacologic studies for methamphetamine dependence
   M. Das-Douglas1,2, D. Santos2, G. Santos2, P. Chu2, E. Vittinghoff1, S. Shoptaw3, G. Colfax1,2,
   1University of California, San Francisco, CA, 2San Francisco Department of Public Health,
   San Francisco, CA, 3University of California, Los Angeles, CA
38 Treatment impact on health-related quality of life among methamphetamine-dependent individuals
   R. Gonzales, P. Marinelli-Casey, R. A. Rawson, University of California, Los Angeles, CA
39 Methamphetamine-related violence among women users
   A. Hamilton1, R. A. Rawson1, N. E. Goeders2, 1Psychiatry, University of California, Los
   Angeles, CA, 2Pharmacology, Toxicology, and Neuroscience, Louisiana State Health Sciences
   Center, Shreveport, LA
40 Service needs, treatment utilization, and outcomes of Asian Americans in drug treatment
   E. Evans, P. Marinelli-Casey, L. Li, Y. Hser, R. Rawson, Integrated Substance Abuse Programs,
   University of California, Los Angeles, CA
41 Rise in meth use in the Latino community
   D. A. Crevecoeur-MacPhail, NPI, University of California, Integrated Substance Abuse
   Program, Los Angeles, CA

STRESS
42 Role of adrenergic receptors in the reinstatement of extinguished cocaine-induced conditioned
   place preference by cocaine, forced swim stress, and yohimbine in mice
   H. Caretta, A. Weyer, J. R. Mantsch, Biomedical Sciences, Marquette University,
   Milwaukee, WI
43 The effects of weight loss and methamphetamine administration on hormone levels
   M. D. Garcia-Villarrreal, D. Alford, G. Guerin, N. E. Goeders, Pharmacology, Toxicology and
   Neuroscience, Louisiana University Health Sciences Center, Shreveport, LA
44 Both imagery scripts and mental arithmetic induce stress in methamphetamine users
K. J. Garrison, G. P. Galloway, J. R. Coyle, M. J. Baggott, J. Mendelson, Addiction Pharmacology, California Pacific Medical Center Research Institute, San Francisco, CA

45 Ovarian hormones and subjective responding to stress and cues in cocaine-dependent females
M. Moran-Santa Maria, M. W. Feltenstein, A. L. McRae, S. E. Back, S. M. DeSantis, K. L. Price, L. M. Jenkins, K. T. Brady, Psychiatry and Behavioral Sciences, Medical University of South Carolina, Charleston, SC

46 Social support moderates biological and subjective responses to stress and drug cues in cocaine-dependent inpatients
S. M. Hyman¹, H. Fox¹, M. J. Kreek², R. Sinha¹, Psychiatry, Yale University School of Medicine, New Haven, CT, ²Laboratory on the Biology of Addictive Diseases, Rockefeller University, New York, NY

47 The relationship between response to laboratory stress provocation and relapse to cocaine
K. Hartwell, S. E. Back, S. M. DeSantis, K. T. Brady, Psychiatry and Behavioral Sciences, Medical University of South Carolina, Charleston, SC

48 HPA axis response to psychological stress is predictive of treatment retention in residential substance abuse treatment
S. B. Daughters¹,², J. M. Richards², S. M. Gorka¹,², R. Sinha¹, School of Public Health, University of Maryland, College Park, MD, ²Center for Addictions, Personality, and Emotion Research, Psychology, University of Maryland, College Park, MD, Psychiatry, Yale University School of Medicine, New Haven, CT

49 A mental arithmetic stressor increases anxiety and heart rate but not craving in methamphetamine-dependent subjects
J. D. Siegrist, J. Mendelson, M. J. Baggott, G. P. Galloway, Addiction Pharmacology, California Pacific Medical Center Research Institute, San Francisco, CA

50 Effect of individual vs dyadic relapse prevention on stress levels of caregivers of alcohol-dependent subjects: Correlates of caregiver stress
P. Nattala¹, A. Nagarajaiah², P. Murthy², Psychiatry, Washington University, St. Louis, MO, ²National Institute of Mental Health and Neurosciences, Bangalore, India

GAMBLING

51 Gender differences in psychosocial stress and in its relationship to gambling urges in individuals with pathological gambling
E. Tschibelu, K. Lindsey, I. Elman, McLean Hospital, Belmont, MA

52 The impact of a curriculum infusion on college students’ knowledge and attitudes toward problem gambling
M. L. Shadley¹, M. C. Leone¹, J. A. Hartje¹, D. F. Quick², A. D. Broadus³, N. A. Roget¹, Center for the Application of Substance Abuse Technologies, University of Nevada, Reno, NV, ²Reno Problem Gambling Center, Reno, NV

53 Problem gambling and risk behavior: Results from a baseline study at the University of Iowa
A. H. Skinstad²,³, S. Hansen³, T. Bergthold²,³, K. Summers²,³, Community and Behavioral Health, University of Iowa, College of Public Health, Iowa City, IA, ²Prairielands Addiction Technology Transfer Center, Iowa City, IA, ³Student Health, University of Iowa, Iowa City, IA

54 Validity of the gambling section for the French adaptation of the Addiction Severity Index
C. Denis¹, G. Bouju², M. Bronnec², M. Fatseas¹, M. Guillou², J. Venisse², M. Auriacombe¹, Addiction Psychiatry EA4139/INSERM-IFR99, Université Victor Segalen Bordeaux 2, Bordeaux, France, Centre de Référence sur le Jeu Excessif, CHU de Nantes, Nantes, France
55 Describing the gambling treatment workforce: A survey to explore an unexamined population
T. L. Bergthold1,2, A. H. Skinstad1,2, K. M. Summers1,2, 1Community and Behavioral Health, University of Iowa, College of Public Health, Iowa City, IA, 2Prairielands Addiction Technology Transfer Center, Iowa City, IA

PSYCHIATRIC COMORBIDITY

56 An exploratory qualitative study on disease models and perceptions towards cannabis use among patients with schizophrenia
M. Liebrenz, A. Buadze, R. Stohler, Research Group on Substance Use Disorders, Psychiatric University Clinic, Zurich, Switzerland

57 Depressed cocaine-dependent and cannabis-dependent individuals seeking treatment: Comparison of psychiatric symptomatology
B. J. Wyman, L. C. Sanfilippo, D. J. Brooks, W. N. Raby, E. V. Nunes, J. J. Mariani, F. R. Levin, Psychiatry, New York State Psychiatric Institute, New York, NY

58 Mental health outcomes and drug use trajectories among adults in the general population (the CARDIA study)
Y. Khodneva1, M. Pletcher2, B. Jones3, J. Tucker3, S. Kertesz1,4, 1University of Alabama Birmingham, Birmingham, AL, 2University of California, San Francisco, CA, 3Carnegie-Mellon University, Pittsburgh, PA, 4VA Medical Center, Birmingham, AL

59 Psychological symptom severity in a residential sample of women with substance use disorders
H. Lee, S. Meshberg-Cohen, D. Svikis, Psychology, Virginia Commonwealth University, Richmond, VA

60 Expressive writing as a therapeutic adjunct to treatment for drug-dependent women: Short-term outcomes from a randomized clinical trial
S. Meshberg-Cohen, D. Nilson, K. Suwal, H. Lee, D. Svikis, Psychology, Virginia Commonwealth University, Richmond, VA

61 Concurrent treatment of substance use disorder and Post Traumatic Stress Disorder: A treatment that works for both genders?
S. Merz1, K. L. Mills1, J. Rosenfeld1, E. Barrett1, M. Teesson1, S. Back2, C. Sannibale1, A. Baker3, S. Hopwood3, K. Brady2, 1National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia, 2Psychiatry, Medical University of South Carolina, Charleston, SC, 3Centre for Brain and Mental Health Research, University of Newcastle, Newcastle, NSW, Australia, 4Centre for Traumatic Stress, Westmead Hospital, Westmead, NSW, Australia

62 Alcohol dependence and Post Traumatic Stress Disorder: Craving and alcohol-related physiological reactivity to trauma and alcohol cues
S. F. Coffey1, J. A. Schumacher1, A. M. Henslee1, P. R. Stasiewicz2, 1Psychiatry and Human Behavior, The University of Mississippi Medical Center, Jackson, MS, 2Research Institute on Addictions, University at Buffalo, Buffalo, NY

63 Effect of traumatic event re-exposure and Post Traumatic Stress Disorder on Substance Use Disorder treatment outcomes
J. M. Peirce, K. B. Stoller, V. L. King, R. K. Brooner, Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD

64 Trauma exposure, distress and self-reported drug use
A. Umbricht1, D. A. Tompkins1, E. L. Winstanley2, E. C. Strain1, M. Z. Mintzer1, J. M. Peirce1, G. E. Bigelow1, 1Psychiatry, Johns Hopkins University, Baltimore, MD, 2Psychiatry, Lindner Center Of Hope, Mason, OH
65 Substance use and risky sexual partners in women with borderline personality disorder
U. Feske, N. De Genna, T. Angiolieri, M. Gold, M. Cornelius, University of Pittsburgh, Pittsburgh, PA

66 Attachment and alexithymia in alcohol-misusing outpatients
F. A. Thorberg¹,², R. M. Young¹,⁵, K. A. Sullivan¹,², M. Lyvers³, J. P. Connor⁴,⁵, G. Feeney⁵, ¹Inst Hlth & Biomed Innovat, Qld Univ of Technol, Brisbane, QLD, Australia, ²School of Psych and Counselling, Qld Univ of Technol, Brisbane, QLD, Australia, ³Dep Psych, Bond Univ, Gold Coast, QLD, Australia, ⁴Discipline of Psychiatry, Univ of Qld, Brisbane, QLD, Australia, ⁵Alcohol & Drug Assessment Unit, Princess Alexandra Hosp, Brisbane, QLD, Australia

67 Exploring NEO personality factors in methadone maintenance treatment patients
G. Staios¹,², A. K. Elkader¹,², B. Brands¹,²,³, M. Zack¹,², R. Callaghan¹,², B. A. Sproule¹,², ¹Centre for Addiction and Mental Health, Toronto, ON, Canada, ²University of Toronto, Toronto, ON, Canada, ³Health Canada, Ottawa, ON, Canada

68 Psychopathy, vulnerable attachment styles, drug abuse and their relations to patients’ outcome in methadone maintenance treatment
D. Potik¹,², Y. Abramsohn¹, E. Peles¹, S. Schreiber²,³, M. Adelson¹, ¹Dr. Miriam & Sheldon G. Adelson Clinic for Drug Abuse, Treatment and Research, Tel Aviv, Israel, ²Psychiatry, Tel Aviv Sourasky Medical Center, Tel-Aviv, Israel

69 A preliminary investigation into the role of family environment, personality, and positive schizotypy in predicting substance use disorders in social anhedonics and controls
M. N. Sargeant, J. Blanchard, Psychology, University of Maryland, College Park, College Park, MD

70 Cessation treatment for smokers with serious mental illness
L. A. Zawertailo¹,², S. Voci¹, B. Brands², P. Selby¹,³,⁴, ¹Addictions Program, Centre for Addiction and Mental Health, Toronto, ON, Canada, ²Pharmacology and Toxicology, University of Toronto, Toronto, ON, Canada, ³Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada, ⁴Family and Community Medicine, University of Toronto, Toronto, ON, Canada

71 Psychiatric comorbidity, severity of addiction and quality of life in opiate-dependent treated patients: A one-year prospective study
E. Lavie¹, C. Denis¹, M. Fatseas¹, J. Daulouede²,¹, M. Auriacombe¹,², ¹Addiction Psychiatry EA4139/INSERM-IFR99, Universite Victor Segalen Bordeaux 2, Bordeaux, France, ²Bizia, Bayonne, France

72 Comorbid patients improve on substance use and psychological symptoms in psychiatric day treatment
A. Rosenblum¹, S. Magura², ¹National Development and Research Institutes, New York, NY, ²Western Michigan University, Kalamazoo, MI

73 Effects of Motivational Interviewing and Cognitive Behavioral Therapy on people with co-occurring disorders
E. Schoener, C. Madeja, J. Janisse, Psychiatry, Wayne State University, Detroit, MI

74 Neighborhood factors predicting treatment compliance and rehospitalization for dually diagnosed patients
G. Stahler¹, J. Mennis¹, R. Cotlar¹, D. A. Baron², ¹Geography and Urban Studies, Temple University, Philadelphia, PA, ²Psychiatry and Behavioral Sciences, Temple University, Philadelphia, PA
PRESCRIPTION DRUG ABUSE

75 Feeling and performing better following placebo methylphenidate: The role of expectancy
A. Looby, M. Earleywine, Psychology, University at Albany, Albany, NY

76 Phase II, randomized, double-blind study in fasted and fed healthy subjects to evaluate the dose-
response for flushing, tolerability, and safety of escalating doses of niacin
R. Wood¹, R. Spivey², R. Colucci³, ¹³ Statprobe, Chapel Hill, NC, ²Acura Pharmaceuticals, Inc., Palatine, IL, ³Colucci & Assoc., LLC, Newtown, CT

77 Abuse liability of IV buprenorphine vs buprenorphine-naloxone in buprenorphine-dependent
individuals
S. D. Comer¹², M. A. Sullivan¹², S. K. Vosburg², J. M. Manubay¹², Z. D. Cooper¹²,
P. A. Saccone², ¹Psychiatry, Columbia University, New York, NY, ²New York State Psychiatric
Institute, New York, NY

78 Relative reinforcing effects of oxycodone and morphine in heroin-dependent volunteers
Z. D. Cooper¹², M. A. Sullivan¹², S. K. Vosburg¹², J. M. Manubay¹², W. J. Kowalczyk¹²,
P. A. Saccone¹², S. D. Comer¹², ¹Psychiatry, Columbia University, New York, NY, ²New York
State Psychiatric Institute, New York, NY

79 ACCESS 2008: Preliminary results from a clinical trial to assess, stratify, and monitor the risk of
prescription opioid abuse and misuse in the primary care setting
S. Siegel¹, B. Setnik¹, C. Roland¹, J. Cleveland¹, R. Colucci², L. Wase¹, ¹King
Pharmaceuticals®, Inc., Bridgewater, NJ, ²Colucci & Associates, LLC, Newtown, CT

80 Characterization of adolescent prescription drug abuse as reported in RADARS System Poison
Center data
A. E. Zosel¹², M. Kirtland¹, J. E. Bailey², R. Dart¹², ¹Rocky Mountain Poison and Drug
Center, Denver, CO, ²University of Colorado Health Sciences Center, Denver, CO

81 Urban-rural differences in risk and protective factors for youth abuse of opioid analgesics
M. Smith¹, R. Jain¹, B. Hosmane², A. Best¹, ¹Risk Management, Pain Care, General Pratice
Research Database, Abbott Laboratories, Abbott Park, IL, ²Biostatistics, Northern Illinois
University, Dekalb, IL

82 Cohort differences in nonmedical prescription drug use in adolescence
S. S. Martins¹, S. G. Severtson¹, G. P. Lee¹, C. L. Storr²¹, ¹Mental Health, Johns Hopkins
Bloomberg School of Public Health, Baltimore, MD, ²Family and Community Health,
University of Maryland School of Nursing, Baltimore, MD

83 Patterns of prescription drug misuse among high-risk youth
S. Lankenau¹², A. Harocopos³, M. Treese², J. Jackson Bloom², C. Shin², L. Goldsamt³,
M. Clatts³, ¹Pediatrics, University of Southern California, Los Angeles, CA, ²Community
Health Outcomes and Intervention Research, Childrens Hospital Los Angeles, Hollywood, CA,
³National Development and Research Institutes, New York, NY

84 Does prescription drug abuse take a holiday?
H. A. Spiller¹, S. S. Spiller¹, J. E. Bailey², R. C. Dart²³, ¹Kentucky Regional Poison Center,
Louisville, KY, ²Rocky Mountain Poison and Drug Center, Denver, CO, ³University of
Colorado Health Sciences, Denver, CO

85 Factors associated with nonmedical use of prescription drugs
G. G. Homish¹², K. E. Leonard²³, J. R. Cornelius⁴, ¹Health Behavior, The State University of
New York at Buffalo, Buffalo, NY, ²Research Institute on Addictions, The State University of
New York at Buffalo, Buffalo, NY, ³Psychiatry, The State University of New York at Buffalo,
Buffalo, NY, ⁴Psychiatry, University of Pittsburgh, Pittsburgh, PA

Tuesday, June 23, 2009
Gender differences in the prevalence of prescription opioid use among inpatients with substance use disorders
R. Payne1, S. E. Back1, A. E. Waldrop2, K. T. Brady1, 1Psychiatry and Behavioral Science, Medical University of South Carolina, Charleston, SC, 2Psychiatry, University of California, San Francisco, CA

Does day of week impact prevalence of prescription drug abuse?
J. E. Bailey1, H. A. Spiller2, S. S. Spiller2, R. C. Dart13, 1Rocky Mountain Poison and Drug Center, Denver, CO, 2Kentucky Regional Poison Center, Louisville, KY, 3University of Colorado Health Sciences Center, Denver, CO

WITHDRAWN

Non-medical use of prescription opioids among veterans with and without HIV: Pain, psychiatric, medical and substance use correlates
D. Barry1, J. Goulet2, A. Heapy2, R. Kerns2, A. Justice2, D. Fiellin1, 1Yale University School of Medicine, New Haven, CT, 2West Haven VA, West Haven, CT

HIV/HCV

HIV prevention using a dyadic and network intervention: The STEP study
C. A. Latkin, K. Tobin, S. J. Kuramoto, Health Behavior and Society, Johns Hopkins University, Baltimore, MD

Social network factors influencing recent HIV testing in drug users
A. E. Rudolph12, K. Jones1, C. Fuller1, 1Johns Hopkins School of Public Health, Baltimore, MD, 2New York Academy of Medicine, New York City, NY

Prescription opiate use as a protective factor for other drug and alcohol use in HIV-positive methadone patients
S. E. Larios, V. Gruber, E. Powelson, J. L. Sorensen, Psychiatry, University of California San Francisco, San Francisco, CA

Modified Therapeutic Community for persons with HIV/AIDS and co-occurring disorders
J. Sacks, K. McKendrick, Center for the Integration of Research and Practice, National Development and Research Institutes, Inc., New York, NY

Effect of mixed drug use on HIV serostatus and life functioning in Ukrainian injection drug users
O. Zezyulin1, J. Schumacher2, K. Dumchev2, S. Chandler1, P. Slobodyanyuk2, L. Moroz3, 1Vinnitsa Regional Narcological Dispensary, Vinnitsya, Ukraine, 2University of Alabama at Birmingham, Birmingham, AL, 3Vinnitsya National Medical University Pirogov, Vinnitsya, Ukraine

Substance use and the quality of patient-provider communication in HIV clinics
P. T. Korthuis1, M. C. Beach2, S. Saha1, R. D. Moore2, J. Cohn1, V. Sharp4, D. McCarty1, 1Oregon Health and Science University, Portland, OR, 2Johns Hopkins University, Baltimore, MD, 3St. Luke’s Roosevelt Hospital, New York, NY, 4Wayne State University, Detroit, MI

Impact of the drug use and substitution treatments on the antiviral treatment of chronic hepatitis C analysis of adherence, virological response and quality of life (CHEOBS)

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Antiretroviral use among HIV+ injection drug users: The role of methadone maintenance and provider engagement
A. R. Knowlton1, J. Arnsten2, J. Wilkinson3, S. Shade4, D. Purcell5, 1Johns Hopkins University, Baltimore, MD, 2Albert Einstein College of Medicine, Bronx, NY, 3University of Miami, Miami, FL, 4University of California, San Francisco, CA, 5CDC, Atlanta, GA

Characteristics of heroin users in methadone maintenance treatment clinics in Wuhan, China
W. Zhou1, P. Liu1, L. Luo1, R. S. Schottenfeld2, M. C. Chawarski2, 1Division of HIV/AIDS Prevention, Wuhan Center for Disease Control and Prevention, Wuhan, China, 2Psychiatry, Yale University School of Medicine, New Haven, CT

Patterns of cognitive impairments among heroin and cocaine users and the association with preexisting developmental conditions and hepatitis status
S. G. Severtson, S. L. Hedden, D. Whitaker, W. W. Latimer, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

An investigation of sexual partnerships and HCV prevalence among regular users of cocaine and heroin
D. Whitaker, B. Mancha, L. Floyd, S. L. Hedden, W. W. Latimer, Mental Health, Johns Hopkins School of Public Health, Baltimore, MD

Relapse and recovery among hepatitis C-infected patients with a history of cocaine or heroin use
A. Y. Walley1, T. Heeren2, C. Bliss2, P. R. Skolnik1, S. Stuver2, D. Nunes1, D. Cotton1, 1Boston University School of Medicine, Boston, MA, 2Boston University School of Public Health, Boston, MA

Hepatitis C Virus knowledge, attitudes, beliefs, and experiences in methadone treatment patients with HCV infection
K. M. Canfield1, S. L. Batki2,3,1, E. Smyth1, R. Ploutz-Snyder4, 1Psychiatry, State University of New York Upstate Medical University, Syracuse, NY, 2Psychiatry, University of California, San Francisco, CA, 3San Francisco VA Medical Center, San Francisco, CA, 4NASA, Houston, TX

Medical comorbidity and HCV treatment eligibility in Methadone Maintenance Treatment vs non-Methadone Maintenance Treatment patients seeking treatment for HCV infection
S. L. Batki1,2,3, K. M. Canfield1, E. Smyth1, R. J. Ploutz-Snyder4, 1Psychiatry, University of California, San Francisco, San Francisco, CA, 2San Francisco VA Medical Center, San Francisco, CA, 3Psychiatry, State University of New York Upstate Medical University, Syracuse, NY, 4NASA, Houston, TX

Illicit drug use and dependence among patients referred to a hepatology clinic in an urban academic medical center
C. Jackson1, J. Varon1, A. Ho1, A. Talal2, M. J. Kreek1, 1The Laboratory of the Biology of Addictive Diseases, Rockefeller University, New York, NY, 2Center for the Study of Hepatitis C, Weill Cornell Medical College, New York, NY

Prevalence and factors associated with HCV-positive saliva test in injecting drug users in North and East France
J. Harbonnier1,2, E. Lavie3, M. Auriacombe3, 1Centre Boris Vian, Lille, France, 2North and East IVDU HCV Study Group, Lille, France, 3Addiction Psychiatry, Universite de Bordeaux, Bordeaux, France
TREATMENT PROVIDERS AND PROGRAMS

106 Staff reports of program structure in relation to client retention, alliance, and drug/alcohol outcomes
   B. McClure¹, A. Kulaga¹, J. Rotrosen¹, R. Forman³, C. Temes², S. Ring-Kurtz², R. Gallop²,
   P. Crits-Christoph², ¹New York University School of Medicine, New York, NY, ²University of
   Pennsylvania, Philadelphia, PA, ³Alkermes, Inc., Boston, MA

107 The impact of a three-hour curriculum infusion on university students' knowledge and attitudes
   about the neuroscience of addiction: Results from the two-year NIDA Enters College Project
   N. A. Roget¹, J. A. Hartje¹, M. S. Berry¹, W. L. Woods¹, A. D. Broadus¹, P. Riggs², ¹Center for
   the Application of Substance Abuse Technologies, University of Nevada, Reno, NV,
   ²University of Colorado Health Sciences Center, Denver, CO

108 A comparison of three methods for training South African substance abuse counselors in
   Cognitive Behavioral Therapy
   R. Sodano¹, D. Watson², S. Rataemane³, L. Rataemane⁴, R. Rawson¹, ¹University of California
   & Integrated Substance Abuse Program, Los Angeles, CA, ²FRI, Los Angeles, CA, ³University
   of Limpopo, Sovenga, South Africa, ⁴MEHADIC, Pretoria, South Africa

109 Outcomes of a Swiss practitioner network survey on the current use of U.S. treatment
   approaches to cocaine addiction
   R. Stohler¹, M. P. Schaub¹,², T. Berthel¹, ¹Psychiatric University Hospital, Zurich, Switzerland,
   ²Research Institute for Public Health and Addiction, Zurich, Switzerland

110 Treatment vs non-treatment groups: Validation of the Addiction Belief Inventory
   A. D. Broadus¹, J. A. Hartje¹, N. A. Roget¹, S. S. Clinkinbeard², ¹Center for the Application of
   Substance Abuse Technologies, University of Nevada, Reno, NV, ²University of Nebraska,
   Omaha, NE

111 Attitudes toward 12-step groups and referral practices in a culture naive to 12-step ideology
   J. Vederhus¹, T. Clausen¹,², A. Laudet³, O. Kristensen¹, ¹Addiction Unit, Sørlandet Hospital,
   Kristiansand, Norway, ²Norwegian Centre for Addiction Research (SERAf), Institute of
   Psychiatry, University of Oslo, Oslo, Norway, ³C-STAR Studies on Recovery, National
   Development and Research Institutes, Inc., New York, NY

112 Field clinician reports of implementation of evidence-based practice
   C. Barrick¹, G. Homish², ¹Research Institute on Addictions, University at Buffalo,
   Buffalo, NY, ²University at Buffalo, Buffalo, NY

113 Substance abuse treatment needs, service utilization, and the role of culture among American
   Indians/Alaska Natives in recovery: Perspectives of clients and service providers
   C. Teruya, D. Dickerson, F. Wu, Y. Hser, University of California Integrated Substance Abuse
   Programs, Los Angeles, CA

114 Problem severity and treatment needs among Native American/Alaska Native and Asian
   American/Pacific Islander drug abusers
   F. Wu¹, Y. Hser², P. Marinelli-Casey², R. Rawson², ¹Social Welfare, UCLA, Los Angeles, CA,
   ²Integrated Substance Abuse Programs, University of California, Los Angeles, CA

115 Racial disparities in residential substance abuse treatment programs
   A. Duncan¹, G. Melnick², ¹Behavioral Science Training in Drug Abuse Research, Public
   Health Solutions, New York, NY, ²Center for the Integration of Research and Practice,
   National Development and Research Institutes, Inc., New York, NY

116 Experiential avoidance predicts substance abuse treatment entry
   K. L. Williams¹,², K. M. Carpenter¹,², F. R. Levin¹,², E. V. Nunes¹,², ¹Psychiatry, Columbia
   University, New York, NY, ²Substance Abuse, New York State Psychiatric Institute, New
   York, NY

Tuesday, June 23, 2009
Predictors of treatment retention in a community substance abuse clinic
R. Vandrey1, J. Fry1, P. Stabile2, M. Stitzer1, 1Johns Hopkins University, Baltimore, MD, 2Harbel Treatment and Recovery Center, Baltimore, MD

Epidemiology I

Five-year follow-up of a group of Brazilian ecstasy users: Is MDMA use a transient phenomenon?
M. C. Battisti, A. R. Noto, Psychobiology, UNIFESP, Sao Paulo, Brazil

Brazilian roadside survey for alcohol and other drugs – interim analysis
F. Pechansky1, R. DeBoni1, D. Benzano1, C. G. Leukefeld2, 1Psychiatry, Center for Drug and Alcohol Research, UFRGS, Porto Alegre, Brazil, 2Behavioral Sciences, Center for Drug and Alcohol Research, University of Kentucky, Lexington, KY

Influences of medicines, stress events, and narcissistic personality on relapse risk in Japanese alcohol-dependent inpatients
Y. Ogai1, Y. Kakibuchi2, E. Senoo1, K. Ikeda1, 1Tokyo Institute of Psychiatry, Tokyo, Japan, 2Narimasu Kosei Hospital, Tokyo, Japan

Epidemiology of substance use disorders in Australia: Findings from the 2007 National Survey of Mental Health and Wellbeing
T. Slade, M. Teesson, A. Johnston, K. Mills, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia

The prevalence and onset of alcohol use disorders during older adulthood: Findings from a 3-year national study in the United States
S. Novak1, E. Johnson1, L. Simoni-Wastila2, 1Behavioral Epidemiology, RTI International, Research Triangle Park, NC, 2School of Pharmacy, University of Maryland, Baltimore, MD

Leisure time activities that predict initiation, persistence, progression, and reduction of cannabis use: A prospective, population-based panel survey
M. P. Schaub1, B. Annaheim2, M. Mueller1, D. Schwappach1, G. Gmel2, 1Research Institute for Public Health and Addiction, Zurich, Switzerland, 2Swiss Institute for the Prevention of Alcohol and Drug Problems, Lausanne, Switzerland, 3Social and Market Research Institute, Zurich, Switzerland

Drug use in individuals screened for participation in human behavioral pharmacology laboratory studies
F. Wagner1, W. W. Stoops1, C. R. Rush1,2,3, 1Behavioral Science, University of Kentucky, Lexington, KY, 2Psychiatry, University of Kentucky, Lexington, KY, 3Psychology, University of Kentucky, Lexington, KY

Validating self-reports of illegal drug use to evaluate National Drug Control Policy
S. Magura, Evaluation Center, Western Michigan University, Kalamazoo, MI

Characteristics of opiate injection drug users with and without amphetamine type stimulant abuse in Kuala Lumpur, Malaysia
M. Mazlan1, V. Balasingam Kasinather2, M. C. Chawarski3, R. S. Schottenfeld3, 1Substance Abuse Center, Muar, Malaysia, 2University Sains Malaysia, Penang, Malaysia, 3Psychiatry, Yale University School of Medicine, New Haven, CT

Regional variations and factors associated with late injection drug use initiation in California
R. Bluthenthal1, L. Wenger2, P. Bourgois3, M. Iguchi4, A. Kral5, 1RAND Corporation, Santa Monica, CA, 2RTI International, San Francisco, CA, 3University of Pennsylvania, Philadelphia, PA, 4University of California, Los Angeles, CA

Spatial analysis of injection drug use, drug treatment, and HIV in Baltimore City
M. Smart, A. Milam, D. Whitaker, C. Furr-Holden, Mental Health, Johns Hopkins School of Public Health, Baltimore, MD
Tuesday, June 23, 2009

129 *Disaggregating a neighborhood perception scale by heroin dependence*
   J. Gass, D. C. Ompad, V. Nandi, D. Vlahov, Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York, NY

130 *Reductions in heroin use frequency following Hurricane Katrina*
   B. D. Johnson¹, E. Dunlap¹, N. Tiburcio¹, R. Twiggs², ¹Special Populations Research, National Development and Research Institutes, New York, NY, ²School of Social Work, Fordham University, New York, NY

131 *Motivators of change among drug-using New Orleans evacuees*
   R. Twiggs², N. Tiburcio¹, B. D. Johnson¹, E. Dunlap¹, ¹Special Populations Research, National Development and Research Institutes, New York, NY, ²Social Work, Fordham University, New York, NY

132 *Methamphetamine-related vs cocaine-related emergency department visits in urban vs rural counties in California*
   T. J. Florence², K. G. Heinzerling¹, A. Swanson¹, S. Shoptaw¹, ¹Family Medicine, University of California, Los Angeles, CA, ²University of Southern California, Los Angeles, CA

133 WITHDRAWN
   R. Falck, R. Carlson, J. Wang, Community Health, Wright State University School of Medicine, Dayton, OH

134 *Quality of life and severity of problems related to alcohol misuse*
   S. Faller, F. Kessler, N. S. Rocha, D. Benzano, M. P. Santos, F. Pechansky, Center for Drug and Alcohol Research - Federal University of Rio Grande do Sul, Porto Alegre, Brazil

135 *Higher psychiatric comorbidity and severity of problems among substance abusers with ADHD*

### Symposium VIII

**Rose Ballroom A**

**10:00 AM - 12:00 PM**

**THIS IS YOUR BRAIN ON GAMBLING (AND DRUGS)...**

**PARSING DRUG AND ADDICTION INFLUENCES BY CONTRASTING “BEHAVIORAL” AND DRUG ADDICTIONS**

Chairs: Marc N. Potenza and Robert Rogers

10:00 *The clinical features and neurobiological substrates of casino gambling*
   Robert Rogers, Oxford University and Warneford Hospital, Oxford, United Kingdom

10:25 *Neural correlates of decision-making in substance-dependent subjects with and without pathological gambling*
   Jody Tanabe, University of Colorado at Denver Health Sciences, Aurora, CO

10:50 *Pathological gambling and substance use disorders: Similarities and differences in neurocognitive and neuroimaging parameters*
   Wim van den Brink, Academic Medical Center University of Amsterdam, Amsterdam, Netherlands

11:15 *Problem gamblers share deficits in impulsive decision-making with substance-dependent subjects*
   Luke Clark, University of Cambridge, Cambridge, United Kingdom

11:40 *Discussant*
   Marc N. Potenza, Yale School of Medicine, New Haven, CT
Symposium IX
THE ACETYLCHOLINE SYSTEM AS THERAPEUTIC TARGET IN DRUG DEPENDENCE: MOLECULAR BIOLOGY, NEUROCHEMISTRY, ANIMAL AND HUMAN BEHAVIORAL PHARMACOLOGY

Chairs: Gerald Zernig and Richard De La Garza, II

10:00 Acetylcholinergic receptors and cocaine addiction: Neuroanatomical, genomic and proteomic perspectives
Scott E. Hemby, Wake Forest University School of Medicine, Winston-Salem, NC

10:25 Activation of nicotinic and muscarinic acetylcholine receptors in nucleus accumbens core are necessary for the acquisition of drug seeking but not food reinforcement
Gerald Zernig, Experimental Psychiatry Unit, Medical University Innsbruck, Innsbruck, ACT, Australia

10:50 Sustained decreases in cocaine self-administration following chronically administered acetylcholinesterase inhibitors
Kenneth Grasing, Substance Abuse Research Laboratory, Kansas City VA Medical Center, Kansas City, MO

11:15 Laboratory-based clinical evaluation of the safety and preliminary efficacy of acetylcholinesterase inhibitors as a treatment for methamphetamine dependence
Richard De La Garza, II, Baylor College of Medicine, Houston, TX

11:40 Limbic disruptions identified by cholinergic probes in cocaine-addicted subjects
Bryon Adinoff, University of Texas Southwestern Medical Center, VA North Texas Health Care System, Dallas, TX

Oral Communications 10
TAKING THE POT: CANNABINOIDS

Chairs: Sandra P. Welch and Prashanthi N. Mainampally

10:00 A BOLD fMRI study of cannabinoid action in rat brain
A. S. Bloom¹, H. Cios¹, W. Collier¹, K. Douville¹, S. Durgerian¹, S. J. Li¹, L. Chang², ¹Medical College of Wisconsin, Milwaukee, WI, ²University of Hawaii, Honolulu, HI

10:15 Endocannabinoid alterations in the hippocampus and nucleus accumbens following chronic cocaine treatment, during withdrawal and following cocaine challenge
S. L. Amen, C. J. Hillard, Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee, WI

10:30 Forced Swim Test and the endogenous cannabinoid receptor system: Effects of an anandamide reuptake inhibitor and a fatty acid amide hydrolase metabolism inhibitor
T. Culmer¹, L. Miller², L. Dykstra¹², ¹Pharmacology, UNC-Chapel Hill, Chapel Hill, NC, ²Psychology, UNC-Chapel Hill, Chapel Hill, NC

10:45 Interaction of S1P and FTY720 with opioid systems in the production of antinociception and opioid tolerance
S. P. Welch, D. E. Selley, L. J. Sim-Selley, Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA
Abuse potential of taranabant, a cannabinoid 1 receptor inverse agonist: A randomized, double-blind, crossover study in recreational polydrug users
K. A. Schoedel¹, B. Chakraborty¹, C. Addy², K. Rosko², A. Maes², N. Chen¹, E. Sellers¹,
¹Clinical Pharmacology, Kendle Early Phase, Toronto, ON, Canada, ²Merck & Co, Inc, Whitehouse Station, NJ

Persistence of cannabis use once it starts: Initial findings from epidemiological research
P. N. Mainampally, J. C. Anthony, Michigan State University, East Lansing, MI

Is early alcohol and nicotine use associated with the risk of cannabis use and transition to cannabis use disorders in adolescence?
S. Behrendt¹, H. U. Wittchen¹, M. Höfler¹, R. Lieb², K. Beesdo¹, ¹Institute of Clinical Psychology and Psychotherapy, Technische Universitaet Dresden, Dresden, Germany, ²Max Planck Institute of Psychiatry, Munich, Germany, ³Institute of Psychology, University of Basel, Basel, Switzerland

The role of temperament in the relationship between early onset of cigarette smoking and cannabis use. The TRAILS study
H. E. Creemers¹, T. Korhonen², J. Kaprio², W. Vollebergh⁴, J. Ormel⁶, F. Verhulst¹, A. Huizink¹, ¹Child and Adolescent Psychiatry, Erasmus Medical Center/Sophia Children’s Hospital, Rotterdam, Netherlands, ²Public Health, University of Helsinki, Helsinki, Finland, ³Mental Health and Alcohol Research, National Public Health Institute, Helsinki, Finland, ⁴Netherlands Institute of Mental Health and Addiction, Utrecht, Netherlands, ⁵Social Sciences, Utrecht University, Utrecht, Netherlands, ⁶University Medical Center Groningen, University of Groningen, Groningen, Netherlands

Symposium X

RACIAL AND ETHNIC DISPARITIES IN SUBSTANCE ABUSE AND ADDICTION: NATIVE AMERICANS AND NATIVE HAWAIIANS

Chairs: Lula A. Beatty and Rumi Price

10:00 Racial/ethnic health disparities in drug addiction: Highlights on Native Americans and Native Hawaiians
Rumi Price, Washington University in St. Louis, School of Medicine, St. Louis, MO

10:20 Can religious use of psychoactive substances reduce disparities in illicit and licit substance abuse among Native Americans?
John H. Halpern, Harvard Medical School, McLean Hospital, Belmont, MA

10:40 Physiological and neuroimaging abnormalities in Native Hawaiians exposed to methamphetamine
William Haning, John A. Burns School of Medicine, University of Hawaii, Honolulu, HI

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Symposium XI
HIV RISK PREVENTION IN THE NIDA CLINICAL TRIALS NETWORK
Chair: Raul Mandler

11:15 Comparative HIV prevention effects between methadone maintenance and psychosocial outpatient programs for male drug users
Donald A. Calsyn, Alcohol and Drug Abuse Institute, University of Washington, Seattle, WA

11:35 Comparative HIV prevention intervention effects between methadone maintenance and psychosocial outpatient programs for female drug users
Susan Tross, Columbia University, New York State Psychiatric Institute, New York, NY

11:55 Discussant: Implications of the results of CTN protocols 0018 and 0019 for future HIV prevention interventions in drug abuse treatment protocols
Lisa Metsch, University of Miami Miller School of Medicine, Miami, FL

Late-Breaking Research News

Chair: Sari Izenwasser

12:15 α6β2*nAChRs regulate progressive ratio responding for nicotine
D. H. Brunzell, K. Boschen, E. S. Hendrick, P. Taylor, P. M. Beardsley, and J. M. McIntosh, Virginia Commonwealth University, Richmond, Virginia; University of Utah, Salt Lake City, Utah

L. Chiuccariello, I. Boileau, P. Rusjan, A. Wilson, S. Houle, L. Zawertailo, B. Busto, and B. Le Foll, Centre for Addiction and Mental Health, Pharmacology and Toxicology, University of Toronto, Pharmaceutical Sciences, University of Toronto, Canada

12:25 Responses to smoking cues increase with duration of abstinence

12:30 Cigarette smokers and non-smokers with serious mental illness: A cross-sectional comparison of neurocognitive function by diagnosis and smoking status
D. Morisano, K.A. Sacco, and T.P. George, Division of Addiction Psychiatry, Psychiatry, University of Toronto, Canada, Schizophrenia Program, Centre for Addiction and Mental Health, Program for Research in Smokers with Mental Illness (PRISM), Psychiatry, Yale University

12:35 (R)-cis-N-(2,3)—Dihydroxpropyl)-2,6-di-(4-methoxyphenylethyl)piperidine hemisulfate (UK-793A) selectively blocks methamphetamine reinforcement without producing tolerance in rats
J. Beckmann, D. Horton, K. Siripurapu, E. Denehy, G. Zheng, P. Crooks, L. Dwoskin, and M. Bardo, University of Kentucky, KY

12:40 Self-administered cocaine causes lasting increases in impulsive choice in a delay discounting task
I.A. Mendez, N.W. Simon, N. Hart, M.R. Mitchell, J.R. Nation, P.J. Wellman, and B. Setlow, Psychology, Texas A&M University, TX
12:45 Neural correlates of spatial learning in chronic cocaine users
G. Tau, R. Marsh, F. Garcia, X. Hao, D. Xu, S. Yu, M. Packard, Z. Wang, Y. Duan, A. Kangarlu, F. Levin, D. Martinez, and B. Peterson, Division of Child and Adolescent Psychiatry, Division on Substance Abuse, Psychiatry, Columbia University and The New York State Psychiatric Institute, New York, NY, Psychology, Texas A&M University, College Station, TX

12:50 Neurobehavioral plasticity in stimulant addiction: Initial results of executive function therapy
W.K. Bickel and R. Yi, University of Arkansas for Medical Science, AK

12:55 Third outpatient pharmacogenetic clinical trial of disulfiram (DS) for cocaine
T.R. Kosten, X. Zhang, D. Nielsen, G. Wu, N. Rubio, W. Huang, G. Gonzalez, and J. Poling, Baylor College of Medicine, Psychiatry, ME Deakey VA Medical Center, Houston, TX

1:00 Abuse potential of nabiximols oromucosal spray in recreational marijuana users
K. Schoedel, N. Chen, and E. Sellers, Kendle Early Phase, Toronto, Canada

1:05 Sleep dysfunction during cannabis withdrawal
R. Vandrey, U. McCann, M. Smith, and A. Budney, Johns Hopkins University School of Medicine, Baltimore, MD, and University of Arkansas for Medical Sciences, Little Rock, AR

1:10 Cue reactivity in response to alcohol odors is associated with a reduction in brain activation in treatment-seeking chronic alcohol-dependent individuals: An fMRI study
S.E. Lukas, S.B. Lowen, D. Penetar, K.P. Lindsey, J. Rodolico, W. Tartarini, R. MacLean, N. Conn, C. Palmer, and G. Mallya, Brain Imaging Center, McLean Hospital, Harvard Medical School, Belmont, MA

1:15 Personality and alcohol dependence: A community-based study on older adults
G. Narayanan, T. Oltmanns, and L.B. Cottler, Washington University, St. Louis, MO

1:20 Gabapentin improves cold-pressor pain tolerance in methadone-maintained patients
W. Ling, P.A. Compton, and P. Kehoe, Integrated Substance Abuse Programs, University of California, Los Angeles, CA, School of Nursing, University of California, Los Angeles, CA

1:25 Pharmacy willingness to conduct random buprenorphine pill counts for office-based opioid dependence treatment practices
M.R. Lofwall, M. J. Wunsch, and S.L. Walsh, Psychiatry, University of Kentucky, Lexington, KY, Behavioral Science, Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY

1:30 Delivering substance abuse treatment services in frontier states: Examining treatment costs and reimbursement structures
J.A. Hartje, M. Zagidullin, N.A. Roget, W. Wendt, and A.H. Skinstad, University of Nevada, Reno; Signal Behavioral Health; University of Iowa, IA

Grant-Writing Workshop (Pre-Registrants Only)
Genoa
1:30 - 4:00 PM

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
FILM NIGHT

FIGHTING THE DRAGON WITH LUCK
Celebrity Showroom
6:30 - 8:00 PM

A documentary about treatment of heroin addiction in Australia
Screening followed by discussion with Angelo Pricolo

CLEAN AND SOBER (1988)
Celebrity Showroom
8:00 - 10:00 PM

Michael Keaton, Kathy Baker, Morgan Freeman

Workshop IX
Rose Ballroom A
8:00 - 10:00 PM

CAREER DEVELOPMENT: A PERSPECTIVE FROM JUNIOR AND SENIOR RESEARCHERS

Chairs: Gerald McLaughlin, Scott Chen, Jose Ruiz and Elaine Lazar-Wesley
Speakers: Mary Jeanne Kreek, Hendree Jones, and David Herin

Workshop X
Ponderosa B
8:00 - 10:00 PM

MATHEMATICAL AND SIMULATION MODELING IN BIOLOGICAL AND EPIDEMIOLOGICAL STUDIES OF DRUG ADDICTION

Chairs: Georgiy Bobashev and Boris Gutkin

A synthetic model of addiction and control theory
David Newlin, RTI International, Baltimore, MD

Computational models of nicotine addiction: From circuit dynamics to behavior
Boris Gutkin, Group for Neural Theory, DEC, ENS, Paris, France

Projecting risk factors into the future with agent-based modeling
Georgiy Bobashev, RTI International, Research Triangle Park, NC

Measuring levels of proteins by PET and other technologies: Is that the whole story?
Michael Kuhar, Emory University, Atlanta, GA

Physiologically based pharmacokinetic modeling of cocaine and other psychostimulants
Vladimir Tsybulsky, University of Cincinnati, Cincinnati, OH

Baseline differences in cortico-striatal-thalamic network coherence in chronic cocaine users
Colleen A. Hanlon, Wake Forest University School of Medicine, Winston Salem, NC

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Tuesday, June 23, 2009

Workshop XI

COMMUNICATING THE RISKS OF OPIOID ANALGESICS: HOW CAN WE DO BETTER?

Chairs: Meredith Smith and Michael Wolf

Opioid analgesic risk communication to healthcare prescribers: Best practices
Gary Kreps, George Mason University, Fairfax, VA

Communicating the risks and benefits of opioid analgesics to pain patients
Lorraine Wallace, University of Tennessee Graduate School of Medicine-Knoxville, Knoxville, TN

The Internet as a communication tool for conveying risk information concerning opioid analgesics: How best used, How best evaluated?
Emil Chiauzzi, Inflexxion, Newton, MA

Conveying information regarding the risks of opioid analgesics to the general public: Challenges and opportunities
Michael Wolf, Feinberg School of Medicine, Northwestern University, Chicago, IL

Workshop XII

ADVANCES IN IMPLEMENTATION SCIENCE RELATED TO ADOLESCENT SUBSTANCE ABUSE TREATMENT

Chairs: Ashli J. Sheidow and Michael L. Dennis

Adolescent substance abuse treatment: Quality of implementation and outcome
Mark Lipsey, Vanderbilt Institute, Nashville, TN

Therapist training and changes in knowledge for contingency management for adolescents and their families
Ashli J. Sheidow, MUSC, Charleston, SC

A Phase 4 replication of MET/CBT5 in 36 sites to examine how findings vary by site, client characteristics, and implementation fidelity
Michael L. Dennis, Chestnut Health Systems, Normal, IL

The relationship between exposure to A-CRA treatment procedures and adolescent substance abuse treatment outcomes
Susan H. Godley, Chestnut Health Systems, Normal, IL

Society for Adolescent Substance Abuse Treatment Effectiveness business meeting
Michael L. Dennis, Chestnut Health Systems, Normal, IL

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
### Public Policy Forum

**Rose Ballroom A**

**8:30 - 9:55 AM**

**Chairs:** Martin Iguchi and William Dewey

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30</td>
<td>Introduction</td>
<td>Martin Iguchi</td>
</tr>
<tr>
<td>8:40</td>
<td>Hope and change and biomedical research: The Obama Administration and the 111th Congress</td>
<td>Ed Long</td>
</tr>
<tr>
<td>8:55</td>
<td>Presentation of the Distinguished Service Award to William L. Dewey</td>
<td>Introduction by Sharon L. Walsh</td>
</tr>
<tr>
<td>9:00</td>
<td>The role of Friends of NIDA and CPDD in Public Policy</td>
<td>William Dewey</td>
</tr>
<tr>
<td>9:15</td>
<td>Reconsidering addiction treatment</td>
<td>A. Thomas McLellan</td>
</tr>
<tr>
<td>9:45</td>
<td>Discussion</td>
<td></td>
</tr>
</tbody>
</table>

### Symposium XII

**REGULATING NICOTINE IN TOBACCO PRODUCTS:**
**STATE OF THE SCIENCE AND FUTURE POLICY**

**Rose Ballroom A**

**10:00 AM - 12:00 PM**

**Chairs:** Dorothy Hatsukami and Jack Henningfield

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00</td>
<td>Regulating the nicotine content of tobacco: Joining the science with policy</td>
<td>Mitch Zeller, Pinney and Associates, Bethesda, MD</td>
</tr>
<tr>
<td>10:25</td>
<td>Characterizing the effects of nicotine dose reduction on nicotine self-administration in animals</td>
<td>Mark G. LeSage, Minneapolis Medical Research Foundation, Minneapolis, MN</td>
</tr>
<tr>
<td>10:50</td>
<td>Reducing nicotine content in cigarettes: Effects on compensatory smoking</td>
<td>Neal Benowitz, University of California, San Francisco, CA</td>
</tr>
<tr>
<td>11:15</td>
<td>Denicotinized cigarettes as a cessation strategy</td>
<td>Jed Rose, Center for Nicotine and Smoking Cessation Research, Duke University, Durham, NC</td>
</tr>
<tr>
<td>11:40</td>
<td>Discussant: Key issues and research recommendations</td>
<td>Dorothy Hatsukami, Tobacco Use Research Center, Minneapolis, MN</td>
</tr>
</tbody>
</table>

### Oral Communications 11

**Ponderosa B**

**10:00 AM - 12:00 PM**

**UPPING THE ANTE: CRAVING STIMULANTS**

**Chairs:** Yasmin Mashhoon and Anna Rose Childress

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00</td>
<td>Poor fronto-limbic connectivity: A brain endophenotype for rapid relapse to cocaine?</td>
<td>J. J. Suh$^{1,2}$, R. N. Ehrman$^{1,2}$, Y. Li$^1$, Z. Wang$^1$, W. Jens$^1$, T. Franklin$^1$, A. Hole$^{1,2}$, M. Goldman$^1$, C. P. O’Brien$^{1,2}$, A. R. Childress$^{1,2}$, $^1$University of Pennsylvania, Philadelphia, PA, $^2$VA Medical Center, Philadelphia, PA</td>
</tr>
</tbody>
</table>
10:15  *Circuits in methamphetamine cue craving and cue extinction*
      R. Malcolm¹, X. Li¹, H. Myrick¹, S. Henderson¹, P. W. Kalivas², R. E. See², ¹Psychiatry, Medical University of South Carolina, Charleston, SC, ²Neurosciences, Medical University of South Carolina, Charleston, SC

10:30  *The rostral basolateral amygdala and prelimbic prefrontal cortex are serially connected to regulate reinstatement of cocaine-seeking behavior in rats*
      Y. Mashhoon, A. M. Wells, K. M. Kantak, Psychology: Brain, Behavior, and Cognition, Boston University, Boston, MA

10:45  *Stimulation of medial prefrontal cortex 5-HT2C receptors attenuates cocaine seeking, but not cocaine self-administration*

11:00  *Enhanced brain metabolic effects of acute cocaine administration following an extended period of cocaine self-administration in nonhuman primates*
      L. L. Howell¹,², P. K. Henry¹, K. S. Murnane¹, J. R. Votaw¹,³, ¹Yerkes National Primate Research Center, Emory University, Atlanta, GA, ²Psychiatry and Behavioral Sciences, Emory University, Atlanta, GA, ³Radiology, Emory University, Atlanta, GA

11:15  *Dramatic elevations in extracellular glutamate within the medial prefrontal cortex of rats during extended access to cocaine self-administration*
      J. DeMartini, G. A. Carosso, K. D. Lominac, A. W. Ary, K. K. Szuminski, O. M. Ben-Shahar, Psychology, University California Santa Barbara, Santa Barbara, CA

11:30  *Cocaine-addicted individuals with prior trauma have a “cue-sensitive” brain*
      A. Childress¹,², C. A. Rudoy¹, J. J. Suh¹,², Y. Li¹, Z. Wang¹, R. N. Ehrman¹,², T. Franklin¹, M. Goldman¹, W. Jens¹, D. D. Langleben¹,², C. P. O’Brien¹,², ¹Psychiatry, University of Pennsylvania School of Medicine, Philadelphia, PA, ²VA VISN 4 MIRECC, Philadelphia VA Medical Center, Philadelphia, PA

11:45  *Role of dorsal hippocampus and rostral basolateral amygdala in cocaine cue extinction learning*
      J. J. Szalay¹, N. P. Morin², K. M. Kantak¹,², ¹Neuroscience, Boston University, Boston, MA, ²Psychology, Boston University, Boston, MA

---

**Oral Communications 12**

**Rose Ballroom B**

**SUBSTITUTION TREATMENT: A SAFE BET**

Chairs: Kelly Dunn and Robert P. Schwartz

10:00  *Comparing jurisdictional policies to buprenorphine-naloxone in Australia*
      K. Mammen¹,², J. Bell¹,², A. Quigley⁴, N. Lintzeris³, ¹Langton Centre, Sydney, NSW, Australia, ²National Drug and Alcohol Research Centre, Sydney, NSW, Australia, ³Drug Health Services RPAH, Sydney, NSW, Australia, ⁴Next Step Drug and Alcohol Services, Perth, WA, Australia

10:15  *Transdermal buprenorphine to switch patients from higher-dose methadone to buprenorphine without severe withdrawal symptoms*
      M. Hess, R. Leisinger, L. Boesch, M. Schaub, R. Stohler, Research Group on Substance Use Disorders, Psychiatry, University Hospital, Zurich, Switzerland

10:30  *Predictors of outcome in buprenorphine treatment for opioid-dependent youth*
      L. Marsch¹,², S. K. Moore¹,², R. Solkhah³, G. J. Badger³, ¹Center for Technology and Health, National Development and Research Institutes, New York, NY, ²St. Luke’s-Roosevelt Hospital Center, New York, NY, ³University of Vermont, Burlington, VT
10:45  Randomized controlled trial using contingency management to promote smoking abstinence among opioid-maintained patients
K. Dunn¹, S. Sigmon¹,², E. Reimann², K. Saulsgiver², S. Higgins¹,² ¹Psychology, University of Vermont, Burlington, NY, ²Psychiatry, University of Vermont, Burlington, VT

11:00  Motivation for physical activity and leg disease in methadone maintenance patients
T. N. Templin¹, B. Pieper¹, R. S. Kirsner², T. J. Birk¹, ¹Wayne State University, Detroit, MI, ²University of Miami, Miami, FL

11:15  Interim vs. comprehensive vs. restored methadone treatment: Preliminary findings
R. P. Schwartz¹,², J. H. Jaffe¹,², S. A. Kelly¹, D. Gandhi³, E. Weintraub³, J. Urbaitis⁴, S. Harrison⁴, K. E. O’Grady⁵, ¹Friends Research Institute, Baltimore, MD, ²Open Society Institute-Baltimore, Baltimore, MD, ³University of Maryland School of Medicine, Baltimore, MD, ⁴Sinai Hospital, Baltimore, MD, ⁵University of Maryland, College Park, MD

11:30  Objective sleep (polysomnography) on entry to methadone maintenance treatment and following 6 months of treatment
E. Peles, S. Schreiber, M. Adelson, Adelson Clinic for Drug Abuse Treatment and Research, Tel Aviv Medical Center and Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel

11:45  Are methadone dose and “take home” status associated with hospital admission?
J. H. Samet¹,²,³, D. M. Cheng², G. Johnson¹, T. Filippell¹, C. A. Chen², C. Pierce¹, D. P. Alford¹, A. Y. Walley¹,³, ¹Boston University School of Medicine, Boston, MA, ²Boston University School of Public Health, Boston, MA, ³Boston University Public Health Commission, Boston, MA

Oral Communications 13

MDMA: NOT EXACTLY ECSTASY

Chairs: Elena Zakharova and Anthony Riley

10:00  Mice lacking multidrug resistance protein 1a show altered dopaminergic responses to methylenedioxymethamphetamine in the striatum
K. B. Scheidweiler¹, B. Ladenheim², J. L. Cadet², M. A. Huestis¹, ¹Chemistry and Drug Metabolism Section, NIDA-IRP, NIH, Baltimore, MD, ²Molecular Neuropsychiatry Branch, NIDA-IRP, NIH, Baltimore, MD

10:15  Social and environmental factors alter the effects of MDMA on activity and cocaine conditioned place preference in adolescent rats
E. Zakharova, J. Kelley, J. Ledon, I. Kichko, D. Wade, S. Izenwasser, University of Miami Miller School of Medicine, Miami, FL

10:30  Antidepressant-like effects of MDMA in a animal model of depression
I. Majumder, J. M. White, R. J. Irvine, Pharmacology, The University of Adelaide, Adelaide, SA, Australia

10:45  The effects of MDMA preexposure on MDMA-induced taste aversions
D. L. Albaugh, J. A. Rinker, A. L. Riley, Psychology, American University, Washington, DC

11:00  Non-linear kinetics of (±)-3,4-methylenedioxymethamphetamine in rats
M. H. Baumann¹, D. Zolkowska¹, I. Kim², K. B. Scheidweiler², R. B. Rothman¹, M. A. Huestis², ¹Clinical Psychopharmacology Section, NIDA/IRP, Baltimore, MD, ²Chemistry and Drug Metabolism Section, NIDA/IRP, Baltimore, MD
11:15 Comparison of the pharmacology of methylenedioxyamphetamine and 3,4-methylendioxymethamphetamine consumed in a recreational setting
K. M. Morefield¹, R. J. Irvine¹, M. Keane¹, P. Felgate³, J. White¹, R. Roberts²
¹Pharmacology, University of Adelaide, Adelaide, SA, Australia, ²University of Otago, Christchurch, New Zealand, ³Forensic Sciences, Adelaide, SA, Australia

11:30 Gender differences in ecstasy use, abuse and dependence
V. Satyanarayana, A. B. Abdallah, L. B. Cottler, Washington University School of Medicine, St. Louis, MO

11:45 3,4-Methylendioxymethamphetamine decreases plasma asymmetric dimethylarginine: A placebo-controlled study in humans
A. Kielstein¹, M. J. Baggott², J. C. Lopez², R. H. Boeger³, E. Schwedhelm³, J. T. Kielstein⁴,
G. P. Galloway², J. Mendelson², ¹Psychotherapeutic Medicine and Psychotherapy, Universitätsklinik der Otto-von-Guericke Universität Magdeburg, Magdeburg, Germany, ²Addiction Pharmacology Research Laboratory, California Pacific Medical Center Research Institute, San Francisco, CA, ³Institut für Experimentelle und Klinische Pharmakologie, Universitätsklinikum Eppendorf, Hamburg, Germany, ⁴Nephrology, Medizinische Hochschule Hannover, Hannover, Germany

POSTER SESSION III (Lunch)

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

Set-up time begins Tuesday no earlier than 3:30 PM
Must be removed by Wednesday no later than 4:00 PM

COCAINE: ANIMALS I

1 Qualitative differences in the self-administration of rats running an alley for intra-PFC and intra-NAcc cocaine
J. M. Wenzel, A. Ettenberg, Psychology, University of California, Santa Barbara, CA

2 Cocaine-seeking after cocaine self-administration is associated with plasticity of the serotonin 5-HT2C receptor in the prefrontal cortex
B. M. Witkin², B. A. Nic Dhonnchadha², S. J. Stutz¹, P. K. Seitz¹, R. G. Fox¹,
K. A. Cunningham¹, ¹Pharmacology, University of Texas Medical Branch, Galveston, TX,
²Center for Addiction Research, University of Texas Medical Branch, Galveston, TX

3 Involvement of basolateral amygdala dopamine D1 and D2 receptors on the expression of cocaine-induced conditioned place preference in rats
M. Itasaka¹, N. Takahashi¹, N. Hironaka¹, K. Ikeda³, ¹SHIMOJO Implicit Brain Function Project, Japan Science and Technology Agency, Atsugi-shi, Japan, ²Psychology, Graduate School of the Humanities, Senshu University, Kawasaki-shi, Japan, ³Molecular Psychiatry Research, Tokyo Institute of Psychiatry, Setagaya-ku, Japan

4 Behavioral sensitization to cocaine in rats: Evidence for temporal differences in dopamine D3 and D2 receptor sensitivity
G. T. Collins¹, Y. N. Truong¹, B. Levant², J. H. Woods¹, ¹University of Michigan Medical School, Ann Arbor, MI, ²University of Kansas Medical Center, Kansas City, KS

5 WITHDRAWN
M. A. Balda¹, Y. Itzhak¹, ¹Neuroscience Program, University of Miami, Miami, FL,
²Psychiatry, University of Miami, Miami, FL
6 Psychostimulant behavioral and neurochemical effects are more rapid in adolescent than adult rats
   Q. D. Walker, A. E. Arrant, C. M. Kuhn, Pharmacology, Duke Medical Center, Durham, NC

7 Exposure to alcohol during adolescence or adulthood alters the aversive and locomotor-activating effects of cocaine in adult rats
   M. A. Hutchison, D. L. Albaugh, A. L. Riley, American University, Washington, DC

8 Self-administered cocaine does not result in locomotor sensitization in monkeys
   N. M. Shinday1,2, D. M. Platt1, J. K. Rowlett1,2, W. D. Yao1,2, 1New England Primate Research Center-Harvard Medical School, Southborough, MA, 2Neuroscience and Behavior, University of Massachusetts at Amherst, Amherst, MA

9 Access to a nondrug alternative reinforcer produces a rightward shift in the cocaine discriminative stimulus
   S. Kohut, A. Riley, American University, Washington, DC

10 Effects of cross-drug preexposure on cocaine- and desipramine-induced conditioned taste aversions
    K. M. Serafine, A. L. Riley, Psychology- Psychopharmacology Laboratory, American University, Washington, DC

11 Effects of the tetrahydroprotoberberines l-tetrahydropalmatine and l-stepholidine on cocaine self-administration under fixed- and progressive-ratio schedules and cocaine discrimination in rats
    S. Wisniewski1, Z. Yang2, S. J. Li3, J. R. Mantsch1, 1Biomedical Sciences, Marquette University, Milwaukee, WI, 2Psychiatry, Beijing Institute of Basic Medical Science, Beijing, China, 3Biophysics, Medical College of Wisconsin, Milwauke, WI

12 Dose preference and dose escalation of cocaine in extended-access self-administration in Fischer and Lewis rats
    R. Picetti, M. J. Kreek, The Rockefeller University, New York, NY

13 Effort to obtain cocaine modulates the effects of a differential-reinforcement-of-alternative-behavior schedule of alternative nondrug reinforcement on cocaine self-administration in rats
    M. G. LeSage, 1Minneapolis Medical Research Foundation, Minneapolis, MN, 2University of Minnesota, Minneapolis, MN

14 Effects of chronic modafinil on cocaine and food self-administration in rhesus monkeys
    J. Newman1, S. S. Negus3, J. Bergman1, T. Prisinzano2, N. Mello1, 1Alcohol and Drug Abuse Research Center, McLean Hospital, Harvard Medical School, Belmont, MA, 2Medicinal Chemistry, University of Kansas, Lawrence, KS, 3Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA

15 Aerobic exercise attenuates the escalation of cocaine intake under extended-access conditions
    M. A. Smith, K. L. Walker, K. T. Cole, Davidson College, Davidson, NC

PEPTIDES/NEUROTRANSMITTERS

16 Alterations in the density of group II mGluRs in the striatum of nonhuman primates following chronic cocaine self-administration
    T. J. Beveridge, H. R. Smith, M. A. Nader, L. J. Porrino, Physiology and Pharmacology, Wake Forest University School of Medicine, Winston Salem, NC

17 Activation of mGluR2/3 selectively attenuates cocaine cue-mediated behavior in a novel nonhuman primate model of relapse
    D. Manvich, L. L. Howell, Division of Neuroscience, Yerkes National Primate Research Center, Emory University, Atlanta, GA
18 Homer2 expression bidirectionally regulates PFC glutamate levels: Relation to cocaine reward
A. W. Ary, K. D. Lominac, M. Klugmann, K. K. Szumlinski, Psychology, University of California Santa Barbara, Santa Barbara, CA, Physiological Chemistry, University Mainz, Mainz, Germany

19 Effects of the competitive NMDA receptor antagonist LY235959 on the antinociceptive response to acute and chronic morphine in WT and NR1 KD mice

20 Morphine decreases innate immunity responses in an endotoxemia model in two strains of mice
S. L. Cruz, I. K. Madera-Salcedo, C. Gonzalez-Espinosa, Pharmacobiology, Cinvestav, IPN, Mexico DF, Mexico

21 The effect of gp120 on the antinociception induced by opioids in the cold water tail-flick test
X. Chen, J. Palma, E. B. Geller, T. K. Eisenstein, M. W. Adler, Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA

22 Intrahypothalamic administration of gp120 induces fever via CXCR4 receptors
K. Benamar, M. Yondorf, S. Addou, J. Palma, E. Geller, T. Eisenstein, M. Adler, Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA

23 Involvement of dopamine system on psychostimulant-like properties of p-fluoroamphetamine in mice
M. Funada, N. Aoo, Y. Akitake, K. Wada, Drug Dependence Research, NIMH, NCNP, Kodaira, Japan

24 Decreases in dopamine D2 receptor availability are associated with age in juvenile rhesus monkeys

25 Generality of disruption of prepulse inhibition by the dopamine agonist apomorphine
L. Moran, C. F. Mactutus, R. M. Booze, Psychology, Behavioral Neuroscience, University of South Carolina, Columbia, SC

26 Effects of neuropeptide Y on the reinforcing efficacy of water and cocaine
A. P. Caven, A. M. Gancarz, J. M. DiPirro, J. B. Richards, A. C. Thompson, Psychology, University at Buffalo, Buffalo, NY, Psychology, Buffalo State College, Buffalo, NY, Research Institute on Addictions, University at Buffalo, Buffalo, NY

27 Detection and quantification of endogenous arginine vasopressin in blood using mass spectrometry
B. Reed, J. Varon, B. T. Chait, Laboratory of the Biology of Addictive Diseases, The Rockefeller University, New York, NY, Laboratory of Mass Spectrometry and Gaseous Ion Chemistry, The Rockefeller University, New York, NY

28 Development of a plate assay to immuno-histochemically detect brain proteins in receptor and signaling pathways associated with addiction
M. T. Reilly, R. A. Alyea, C. S. Watson, P. K. Seitz, K. Cunningham, Pharmacology, University of Texas Medical Branch, Galveston, TX

NICOTINE: HUMAN STUDIES

29 Effect of nicotine on attentional networks in smokers and nonsmokers
30 Initiating and maintaining smoking abstinence via the Internet
P. A. Nuzzo1,4, N. E. Schoenberg1, C. A. Martin2, J. Dallery3, C. J. Wong1, W. W. Stoops1,4,
1Behavioral Science, University of Kentucky, Lexington, KY, 2Psychiatry, University of
Kentucky, Lexington, KY, 3Psychology, University of Florida, Gainsville, FL, 4Center on Drug
and Alcohol Research, University of Kentucky, Lexington, KY

31 The reinforcing efficacy of 3 vs. 6 puffs in smokers: Comparing traditional and demand analysis
E. T. Mueller1, W. Bickel1, R. Y1, G. Badger2, 1Psychiatry, University of Arkansas for Medical
Sciences, Little Rock, AR, 2University of Vermont, Burlington, VT

32 Craving and use of tobacco and cocaine: Findings from an ecological momentary assessment
study with polydrug users
Research Program, Baltimore, MD

33 Could low dependent smokers be more cue reactive than high dependent smokers?
N. L. Watson1, M. J. Carpenter1, M. E. Saladin1, K. M. Gray1, S. A. McCullough1,
E. M. Klintworth1, C. E. Horne1, H. P. Upadhyaya1,2, 1Medical University of South Carolina,
Charleston, SC, 2Eli Lilly and Company, Indianapolis, IN

34 Menstrual phase differences in nicotine response after acute smoking abstinence
A. M. Allen1, S. S. Allen1, M. al’Absi1, D. K. Hatsukami2, 1Family Medicine and Community
Health, University of Minnesota, Minneapolis, MN, 2Psychiatry, University of Minnesota,
Minneapolis, MN

35 Sex differences in brain responses to smoking cues vary as a function of smoking
satiety/abstinence
B. Froeliger, R. V. Kozink, A. M. Lutz, F. J. McClernon, Psychiatry, Duke University Medical
Center, Durham, NC

36 Acute negative affect relief from smoking may be related to the situation and unrelated to
nicotine intake
K. Perkins, J. L. Karelitz, C. A. Conklin, M. A. Sayette, A. Grottenthaler, Psychiatry,
University of Pittsburgh, Pittsburgh, PA

37 Influence of acute methylphenidate administration on cigarette smoking behavior in ADHD-diagnosed adults
A. R. Vansickel1, M. Poole1, W. W. Stoops1, P. E. A Glaser2, C. R. Rush1,2, 1Psychology,
Behavioral Science, University of Kentucky, Lexington, KY, 2Psychiatry, University of
Kentucky, Lexington, KY

38 Pre-quit brain fMRI responses to tobacco smoking-related cues predict slips during smoking
cessation treatment
A. C. Janes1, B. Frederick1, S. Richardt1, E. Merlo-Pich3, A. E. Evins2, M. Fava2,
P. F. Renshaw1, M. J. Kaufman1, 1Brain Imaging Center, McLean Hospital, Belmont, MA,
2Massachusetts General Hospital, Boston, MA, 3Psychiatry-CEDD, GlaxoSmithKline, Verona,
Italy

39 The regulation of craving for cigarettes vs. food: An fMRI study of cigarette smokers
H. Kober1, E. Kross2, P. Mende-Siedlecki1, W. Mischel1, C. Hart1, K. Ochsner1, 1Psychology,
Columbia University, New York, NY, 2Psychology, University of Michigan, Ann Arbor, MI

40 Smoking abstinence increases posterior insula–default network functional connectivity
F. J. McClernon, B. E. Froeliger, R. V. Kozink, A. M. Lutz, Duke University Medical Center,
Durham, NC

41 Ecological Momentary Assessment of smoking cessation in smokers with schizophrenia
J. W. Tidey1, C. J. Gwaltney2, S. M. Colby1, 1Psychiatry and Human Behavior, Brown
University, Providence, RI, 2Community Health, Brown University, Providence, RI
42 Nicotine occupancy of beta2*-nicotinic acetylcholine receptors after use of nicotine inhaler: Relationship to craving
I. Esterlis1, E. Mitsis4, J. Batis3, F. Bois1, S. Stikluss1, T. Kloczynski1, E. Perry1, G. Tamagnan3,1, J. Seibyl1,1, J. Staley1,2, Psychiatry, Yale University and VACHS, W Haven, CT, 3Diagnostic Radiology, Yale University and VACHS, West Haven, CT, 4Institute Neurodegen, New Haven, CT, 4Mount Sinai, New York, NY

43 Reduced carbon monoxide in treatment-seeking cigarette smokers undergoing contingency management: Preliminary analysis
D. M. Ledgerwood, C. L. Arfken, Psychiatry, Wayne State School of Medicine, Detroit, MI

44 Do participants in randomized clinical trials for nicotine dependence reflect the general population of smokers?
N. Dasgupta1, A. C. Andorn2, H. D. Chilcoat2, Epidemiology, University of North Carolina School of Public Health at Chapel Hill, Chapel Hill, NC, 2Worldwide Epidemiology, GlaxoSmithKline, Honolulu, HI

45 A randomized, double-blind, placebo-controlled clinical trial of selegiline hydrochloride for smoking cessation: Preliminary results
A. H. Weinberger1, E. L. Reutenauer1, M. N. Potenza1, S. S. O’Malley1, T. P. George2,3, Psychiatry, Yale University School of Medicine, New Haven, CT, 2Psychiatry, University of Toronto, Toronto, ON, Canada, 3Schizophrenia Program, Centre for Addiction and Mental Health, Toronto, ON, Canada

CANNABINOIDS/MARIJUANA

46 Stopping marijuana increases alcohol use: An experimental verification of drug substitution
E. N. Peters1, J. R. Hughes2, Psychology, University of Vermont, Burlington, VT, 2Psychiatry, University of Vermont, Burlington, VT

47 Life course trajectories of employment: Exploring the impacts of drug use
Y. Hser1, Y. C. Huang1, M. Hara1, R. Weiss2, Integrated Substance Abuse Programs, University of California, Los Angeles, CA, 2School of Public Health, Biostatistics, University of California, Los Angeles, CA

48 Greater psychiatric symptoms in young marijuana users
C. C. Cloak, I. Chin, D. Alicata, T. Ernst, L. Chang, University of Hawaii at Manoa, John A Burns School of Medicine, Honolulu, HI

H. Cheng, J. C. Anthony, Michigan State University, East Lansing, MI

50 The negative prognostic impact of cannabis dependence in a study of patients with bipolar disorder and substance use disorders
W. B. Jaffee, M. Griffin, L. McDonald, S. Putnins, G. Fitzmaurice, R. Weiss, Alcohol and Drug Abuse Treatment Program, Harvard Medical School, McLean Hospital, Belmont, MA

51 Beyond abstinence: Can Cognitive Behavioral Therapy reduce cannabis-related problems?
K. Dittmer, E. Hoch, R. Noack, H. Rohrbacher, J. Henker, G. Bühringer, H. U. Wittchen, Institut für Klinische Psychologie und Psychotherapie, Technische Universität Dresden, Dresden, Germany

52 Childhood predictors of first chance to use and use of cannabis by young adulthood
C. L. Storr1,2, F. A. Wagner3, C. Y. Chen1, J. C. Anthony3, University of Maryland, Baltimore, MD, 2Johns Hopkins, Baltimore, MD, 3Morgan State University, Baltimore, MD, 4National Health Research Institute, Taipei, Taiwan, 5Michigan State University, East Lansing, MI
53 Prediction of cannabis use disorder between childhood and young adulthood using cortisol reactivity, transmissible and non-transmissible liability indices
L. Kirisci, R. Tarter, M. Vanyukov, M. Reynolds, A. Mezzich, T. Ridenour, Pharmaceutical Sciences, University of Pittsburgh, Pittsburgh, PA

54 Smoked marijuana discrimination in humans
L. H. Lundahl, C. L. Steinmiller, L. Sander, M. K. Greenwald, C. E. Johanson, Psychiatry and Behavioral Neuroscience, Wayne State University School of Medicine, Detroit, MI

55 Gender differences in response to marijuana cues and stress in marijuana-dependent individuals
K. Price, A. McRae-Clark, M. Saladin, R. Carter, K. Brady, Psychiatry, Medical University of South Carolina, Charleston, SC

56 The substitution profile of the cannabinoid agonist nabilone in human subjects discriminating Δ9-THC
J. A. Lile, L. R. Hays, T. H. Kelly, University of Kentucky College of Medicine, Lexington, KY

57 Amygdala volumes in adolescent marijuana users
T. McQueeny¹, C. B. Padula¹, J. S. Price¹, K. L. Medina¹, S. F. Tapert², ¹University of Cincinnati, Cincinnati, OH, ²University of California, San Diego, La Jolla, CA

58 The effects of marijuana on creative problem solving
S. K. Vosburg, R. W. Foltin, M. Haney, Substance Abuse, Columbia University/New York State Psychiatric Institute, New York, NY

59 The effects of IV prenatal tetrahydrocannabinol exposure on passive avoidance performance in male and female juvenile rats
L. C. Harte, A. Jackson, M. Iijima, N. Zhao, D. Dow-Edwards, Program on Neural and Behavioral Sciences, Physiology/Pharmacology, State University of New York Downstate, Brooklyn, NY

PREGNANCY AND DRUG ABUSE

60 Neonatal abstinence syndrome and gender: Does sex matter?
K. Kaltenbach, A. Holbrook, V. Nguyen, Pediatrics, Thomas Jefferson University, Philadelphia, PA

61 Resilience to adolescent behavioral risk after intrauterine cocaine exposure
J. Liebschutz, D. A. Frank, R. Rose-Jacobs, J. Gerteis, S. Soenksen, T. Heeren, B. Martin, H. Cabral, D. Appugliese, Boston University, Boston, MA

62 Correlates of prenatal tobacco use in a treatment sample of pregnant drug-dependent women
J. Gray¹, L. Phipps¹, N. Haug², M. Stitzer², D. Svikis¹, ¹Psychology, Virginia Commonwealth University, Richmond, VA, ²Psychiatry, Johns Hopkins, Baltimore, MD

63 Social discounting among pregnant cigarette smokers
M. Bradstreet¹, S. T. Higgins¹², ¹University of Vermont, Burlington, VT, ²Psychiatry, University of Vermont, Burlington, VT

64 Smoking opinions and attitudes among pregnant smokers and spontaneous quitters
E. Herrmann¹, S. Heil², S. Higgins¹², L. Solomon³, I. Bernstein⁴, ¹Psychology, University of Vermont, Burlington, VT, ²Psychiatry, University of Vermont, Burlington, VT, ³Family Medicine, University of Vermont, Burlington, VT, ⁴OB/Gyn, University of Vermont, Burlington, VT

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Legal issues among drug-using pregnant women
T. Linares Scott1, S. Heil1, H. Jones2, M. Wagner4, G. Fischer4, K. Kaltenbach5, S. Stine6, P. Martin7, M. Coyle8, P. Selby9, 1U of Vermont, Burlington, VT, 2Johns Hopkins U, Baltimore, MD, 3U of Maryland, College Park, MD, 4Medical U of Vienna, Vienna, Austria, 5Thomas Jefferson U, Philadelphia, PA, 6Wayne State U, Detroit, MI, 7Vanderbilt U, Nashville, TN, 8Brown U, Providence, RI, 9U of Toronto, Toronto, ON, Canada

Predictors of initial abstinence in newly pregnant women
J. H. Yoon1, S. T. Higgins2,3, G. J. Badger4, M. P. Bradstreet3, 1Psychiatry and Behavioral Research, Baylor College of Medicine, Houston, TX, 2Psychiatry, University of Vermont, Burlington, VT, 3Psychology, University of Vermont, Burlington, VT, 4Medical Biostatistics, University of Vermont, Burlington, VT

Using a community coalition to develop a smoking cessation program to reduce infant mortality
A. L. Sepulveda, M. G. Kennedy, J. B. Bradford, S. L. Garland, S. W. Masho, D. S. Svikis, W. R. Smith, Virginia Commonwealth University, Richmond, VA

Characteristics associated with smoking severity during pregnancy
S. H. Heil1, S. Higgins1, L. Solomon2, I. Berstein3, 1Psychiatry, University of Vermont, Burlington, VT, 2Family Practice, University of Vermont, Burlington, VT, 3OB/Gyn, University of Vermont, Burlington, VT

Low educational attainment and cigarette smoking during pregnancy

Women’s perspectives on screening for alcohol and drug use in prenatal care
S. Roberts, 1School of Public Health, University of California, Berkeley, Berkeley, CA, 2Alcohol Research Group, Emeryville, CA

Pregnant women in methadone maintenance: Barriers to treatment and treatment engagement
L. Oberleitner, L. H. Lundahl, School of Medicine, Wayne State University, Detroit, MI

Psychosocial functioning in methadone- and nonmethadone-maintained pregnant women: Relationships to treatment engagement and retention
B. C. Jancaitis1,2, J. May1,2, S. Maslo2, D. Svikis2, 1Richmond Behavioral Health Authority, Richmond, VA, 2Virginia Commonwealth University, Richmond, VA

There is no window of opportunity: Pregnancy and disparities in treatment need vs. receipt
E. J. Smith, M. Terplan, Obstetrics and Gynecology, University of Chicago, Chicago, IL

Preliminary findings on the efficacy of an HIV prevention intervention for pregnant African-American women in substance abuse treatment in the South
F. Browne1, R. Middlesteadt-Ellerson1, A. Gentry1, H. Jones2, D. Haller3, W. Wechsberg1, 1RTI International, Research Triangle Park, NC, 2The Johns Hopkins University, Baltimore, MD, 3Columbia University, New York, NY

Multidimensions of HIV risk for drug-dependent pregnant patients
H. E. Jones1, W. Wechsberg2, K. O’Grady3, R. Chaudhury1, M. Tuten1, 1Johns Hopkins University, Baltimore, MD, 2RTI International, Durham, NC, 3University of Maryland, College Park, MD

Victimization, mental distress, crime, and substance use among pregnant adolescent girls
V. H. Coleman, M. Dennis, Lighthouse Institute, Chestnut Health Systems, Normal, IL

IMPULSIVITY

Effects of prenatal stress on lever-press acquisition, delay discounting, and ethanol self-administration in rats
N. R. Bruner, K. G. Anderson, Psychology, West Virginia University, Morgantown, WV
Impulsivity does not correlate with working memory or alcohol preference in rats bred for alcohol preference
G. R. Wenger, Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR

The effect of long and short access to d-amphetamine self-administration on a delay discounting task in rats
C. Gipson, M. T. Bardo, Psychology, University of Kentucky, Lexington, KY

Effects of signaled delays, delay order, and d-amphetamine on delay discounting
J. M. Slezak, K. Anderson, Psychology, West Virginia University, Morgantown, WV

Striatal dopamine D2/D3 receptors, impulsivity, and methamphetamine dependence
B. Lee¹, R. A. Poldrack³, G. Tabibnia¹, M. A. Mandelkern⁴,⁵, A. V. Bokarius¹, J. R. Monterosso⁶, A. Aron⁶, J. Farah⁶, M. Dahlbom⁶, R. M. Bilder¹, A. L. Brody¹,⁵, E. D. London¹,², ¹Psychiatry and Biobehavioral Science, University of California, Los Angeles, CA, ²Molecular and Medical Pharmacology, University of California, Los Angeles, CA, ³Psychology, University of California, Los Angeles, CA, ⁴Physics, UCI, Los Angeles, CA, ⁵PET Center, VA, Los Angeles, CA, ⁶Psychology, USC, Los Angeles, CA

The relationship between the responsivity to cocaine-related stimuli and other cognitive performance
S. Liu¹, F. G. Moeller¹, S. D. Lane¹, K. A. Cunningham², ¹Psychiatry and Behavioral Sciences, University of Texas Houston, Houston, TX, ²Pharmacology and Toxicology, University of Texas Galveston, Galveston, TX

Relationship of impulsivity and decision-making measures in cocaine dependence
K. L. Kjome, S. D. Lane, J. M. Schmitz, C. Green, L. Ma, I. Prasla, A. C. Swann, F. G. Moeller, Psychiatry, University of Texas-Houston, Houston, TX

Impulsivity, completion status, and ethnicity in a clinical trial for cocaine dependence
W. V. Lechner¹, M. S. Schuler², S. D. Larowe¹, L. R. Rogers¹, R. J. Malcolm¹, ¹Psychiatry, Center for Drug and Alcohol Problems, Medical University of South Carolina, Charleston, SC, ²Biostatistics, Bioinformatics, and Epidemiology, Medical University of South Carolina, Charleston, SC

Impact of adult ADHD and cocaine dependence on measures of attention and impulsivity
D. J. Brooks¹, S. M. Evans²,¹, F. R. Levin²,¹, ¹Substance Abuse, New York State Psychiatric Institute, New York, NY, ²Psychiatry, Columbia University, New York, NY

Characteristics of psychopathy in adolescent nonsmokers and smokers: Relations to delay discounting and self-reported impulsivity
S. Melanko¹, B. Reynolds², ¹West Virginia University, Morgantown, WV, ²The Ohio State University, Columbus, OH

Impulsive disinhibition in adolescent smokers and nonsmokers
S. Fields, C. Collins, K. Leraas, S. Imhoff, B. Reynolds, Nationwide Childrens Hospital, Columbus, OH

Depression and impulsivity in adolescent smokers and nonsmokers
S. Imhoff, C. Collins, K. Leraas, S. Fields, B. Reynolds, Nationwide Childrens Hospital, Columbus, OH

The effects of multimodal treatment on delay discounting in opioid-dependent individuals
D. R. Christensen, R. D. Landes, W. K. Bickel, University of Arkansas for Medical Sciences, Little Rock, AR
Delayed discounting and questionnaire measures of impulsive and inattentive behaviors are heterogeneous

C. L. Steinmiller, M. K. Greenwald, Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI

Impulsivity, risk-taking, and behavioral problems in treatment-seeking adolescents

J. VanScoyoc, C. Stanger, A. J. Budney, University of Arkansas for Medical Sciences, Little Rock, AR

Measuring impulsive behavior and cognition in inner-city substance abusers using translation procedures based on preclinical research

M. E. Mattila-Evenden1, J. Shack1, C. Heeney-Buggey1, J. Evenden2, 1Psychiatry and Behavioral Science, Temple University Hospital, Philadelphia, PA, 2WiltonLogic, Media, PA

Head injury and intimate partner violence perpetration among alcohol-treatment-seeking men

J. A. Schumacher1, S. F. Coffey1, K. E. Leonard2, 1Psychiatry and Human Behavior, University of Mississippi Medical Center, Jackson, MS, 2Research Institute on Addictions, University at Buffalo, Buffalo, NY

HIV/AIDS RISK

Using latent class analysis to examine patterns of HIV risk behaviors among women with lifetime histories of illicit drug use

C. E. Cavanaugh, C. Graham, S. Hedden, W. Latimer, Bloomberg School of Public Health, Mental Health, Johns Hopkins University, Baltimore, MD

Chaos: The root of the problem for female crack users

L. B. Cottler, C. C. O'Leary, S. E. Bradford, C. W. Striley, A. Ben Abdallah, Psychiatry, Washington University School of Medicine, St. Louis, MO

Social network correlates of unprotected sex in Russian injection drug-using sexual partnerships

V. Gyarmathy1, N. Li2, K. E. Tobin2, I. F. Hoffman3, A. P. Kozlov4, A. B. Laudet5, C. A. Latkin2, 1European Centre for Drugs and Drug Addiction, Lisbon, Portugal, 2Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 3University of North Carolina at Chapel Hill, Chapel Hill, NC, 4Biomedical Center, St. Petersburg State University, St. Petersburg, Russia, 5National Development and Research Institutes, Inc., New York, NY

Double jeopardy for drug-using women in Russia: Injecting and sexual risks reported in a small trial

W. M. Wechsberg1, E. Krupitsky2, T. Romanova2, E. Zvartau2, A. Gentry1, F. Browne1, R. Middlesteadt Ellerson1, 1RTI International, Durham, NC, 2St. Petersburg Pavlov State Medical University, St. Petersburg, Russia

Risk behaviors of a sample of female injection drug users in Malaysia

V. B. Kasinather1, M. Mazlan2, M. C. Chawarsi3, R. S. Schottenfeld3, 1Centre for Drug Research, University Sains Malaysia, Penang, Malaysia, 2Substance Abuse Research Centre, Muar, Malaysia, 3School of Medicine, Yale University, New Haven, CT

Intervening to address drug use and sexual HIV risk among female sex workers in Durban, South Africa

P. M. Petersen, T. Carney, A. Plüddemann, C. Parry, Alcohol and Drug Abuse Research Unit, Medical Research Council, Cape Town, South Africa

The impact of social and emotional isolation on risky behaviors among women injection drug users in Portland, OR

A. Hilde, J. Lapidus, Y. Michael, Public Health and Preventative Medicine, Oregon Health and Science University, Portland, OR
101 Associations between sexual risk behavior patterns and HIV in female South African drug users
S. L. Hedden, C. Cavanaugh, C. Graham, L. Floyd, W. W. Latimer, Mental Health, Johns Hopkins School of Public Health, Baltimore, MD

102 HIV-positive drug users less likely to use condoms in South Africa
C. Graham, S. L. Hedden, C. E. Cavanaugh, W. W. Latimer, Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

103 The moderating effects of sex trade on the relationship between poly substance use and HIV among South Africans
L. J. Floyd, C. Cavanaugh, A. Lawson, W. W. Latimer, Mental Health, Johns Hopkins University, Baltimore, MD

104 HIV risk behaviors by sexual orientation after treatment for methamphetamine dependence
C. Manneh, M. Hillhouse, S. Schroeder, R. Rawson, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA

105 Sexual orientation, drug use during sex, and HIV risk practices/preferences among men who use the Internet to find men for unprotected sex
H. Klein, Center for the Study and Prevention of Drug Use, Morgan State University, Baltimore, MD

106 HIV risk behaviors among substance-dependent non-gay-identifying men and women with same-gender sex experiences
D. Allensworth-Davies¹, J. H. Samet², D. M. Cheng¹,², A. Fitzgerald², T. W. Kim², J. Witas², R. Saitz²,¹Boston University School of Public Health, Boston, MA, ²Boston University School of Medicine/Boston Medical Center, Boston, MA

107 The role of social context in the relationship between drug use and risky sexual behavior among individuals who use both heroin and crack/cocaine
C. Kopetz¹, E. Reynolds¹, C. W. Lejuez¹, A. W. Kruglanski², ¹Center for Addiction, Personality and Emotion Research, University of Maryland, College Park, MD, ²Psychology, University of Maryland, College Park, MD

108 Racial differences in HIV discordant sexual partnerships and sexual mixing between individuals with different social, drug use, and sexual risk
M. Khan¹,², M. Bolyard³, P. Mateu-Gelabert¹, S. R. Friedman¹, ¹National Development and Research Institutes, New York, NY, ²Public Health Solutions, New York, NY, ³Emory College of Arts and Sciences, Atlanta, GA

109 Predicting recent event-level condom use using behavioral assessment among urban, minority substance users
J. Magidson, E. Reynolds, C. Fuchs, S. Gorka, M. Bornovalova, S. Daughters, C. Lejuez, Psychology, University of Maryland, College Park, College Park, MD

110 Factors associated with needle exchange program and pharmacy use among heroin and cocaine injectors in Baltimore, MD
B. E. Mancha¹, D. Whitaker¹, S. G. Severtson¹, A. Nandi², S. Hedden¹, L. Floyd¹, W. W. Latimer¹, ¹Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²Center for Population and Development Studies, Harvard School of Public Health, Boston, MA

111 Buprenorphine detoxification: Effects on problem severity and AIDS risk behaviors
S. J. Lookatch¹, E. M. Dunne¹, B. S. Brown²,³, R. Schwartz², S. D. King³, K. O’Grady⁴, D. Gandhi⁴, E. C. Katz¹,³, ¹Psychology, Towson University, Towson, MD, ²University of North Carolina, Wilmington, NC, ³Friends Research Institute, Baltimore, MD, ⁴University of Maryland, Baltimore, MD
112 HIV sexual risk behaviors and physician screening in office-based buprenorphine treatment
L. Sullivan, B. Moore, S. Cawley, R. Schottenfeld, D. Fiellin, Yale University, New Haven, CT

OPIATES: HUMAN STUDIES

113 Behavioral naltrexone therapy plus depot naltrexone for heroin dependence: A randomized controlled trial
M. A. Sullivan, K. M. Carpenter, J. M. Manubay, J. Kurtz, J. Lazar, E. V. Nunes, Columbia/New York State Psychiatric Institute, New York, NY

114 Naltrexone-induced protracted opioid withdrawal
J. J. Mariani, M. Sullivan, A. Bisaga, K. Carpenter, K. A. Murray, F. R. Levin, E. V. Nunes, Psychiatry/Division on Substance Abuse, Columbia University/New York State Psychiatric Institute, New York, NY

115 Induction of opioid-dependent individuals onto buprenorphine and buprenorphine/naloxone film strips
E. C. Strain, G. E. Bigelow, J. Harrison, Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD

116 Risk-taking propensity as a predictor of induction onto naltrexone treatment for opioid dependence
W. M. Aklin¹, G. Severtson², A. Umbricht¹, M. Fingerhood³, G. E. Bigelow³, K. Silverman³, ¹Behavioral and Integrative Treatment Branch, NIDA, Bethesda, MD, ²Public Health, Johns Hopkins University, Baltimore, MD, ³Psychiatry, Johns Hopkins University, Baltimore, MD

117 Employment-based reinforcement of adherence to depot naltrexone pharmacotherapy
J. Everly, A. Defulio, A. Umbricht, M. Fingerhood, G. Bigelow, K. Silverman, Johns Hopkins University School of Medicine, Baltimore, MD

118 One year of sustained-release naltrexone treatment for opioid dependence
N. Kunøe¹, P. P. Lobmaier¹, J. K. Vederhus², Ø. Kristensen², B. Hjerkin², S. Hegstad³, M. Gossop⁴,¹, H. Waal¹, ¹Norwegian Centre for Addiction Research, University of Oslo, Oslo, Norway, ²The Addiction Unit, Sørlandet Hospital, Kristiansand, Norway, ³Division of Forensic Toxicology and Drug Abuse, Norwegian Institute of Public Health, Oslo, Norway, ⁴National Addiction Centre, Institute of Psychiatry, King’s College, London, United Kingdom

119 Memory functioning of opiate-dependent individuals during Methadone Maintenance Treatment with Cognitive Behavioral Treatment
M. C. Chawarski¹, B. Garnet², R. S. Schottenfeld¹, ¹Psychiatry, Yale University School of Medicine, New Haven, CT, ²APT Foundation, Inc., New Haven, CT

120 Cognitive performance and methadone maintenance patients
B. A. Kleykamp, R. Vandrey, G. Bigelow, M. Stitzer, E. Strain, M. Mintzer, School of Medicine, Johns Hopkins University, Baltimore, MD

121 The provision of drug counseling services in office-based buprenorphine treatment
J. E. Egan¹, J. Netherland¹, R. Finkelstein¹, D. Fiellin², T. Pugh¹, L. Weiss¹, ¹New York Academy of Medicine, New York, NY, ²Yale University School of Medicine, New Haven, CT

122 Variation in retention by behavioral condition in buprenorphine treatment for opioid dependence
M. P. Hillhouse, J. Fahey, J. Jenkins, W. Ling, R. Rawson, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA

123 Retention and transition to long-term treatment in opioid-dependent patients: Impact of Intensive Role Induction
E. C. Katz¹,², B. S. Brown²,³, R. Schwartz¹, S. D. King³, K. O’Grady⁴, D. Gandhi⁴, ¹Psychology, Towson University, Towson, MD, ²University of North Carolina, Wilmington, NC, ³Friends Research Institute, Baltimore, MD, ⁴University of Maryland, Baltimore, MD
124 Treatment options for opiate dependence: Choices between buprenorphine and methadone
M. R. Polen1, D. McCarty2, C. Green1,2, 1Center for Health Research, Kaiser Permanente, Portland, OR, 2Public Health and Preventive Medicine, Oregon Health & Science University, Portland, OR

125 Treatment entry among individuals on a waiting list for methadone maintenance
J. Gryczynski1, R. P. Schwartz1, K. E. O’Grady2, J. H. Jaffe3, 1Social Research Center, Friends Research Institute, Baltimore, MD, 2Psychology, University of Maryland, College Park, College Park, MD, 3School of Medicine, University of Maryland, Baltimore, MD

126 Relationship between patient attitudes toward methadone and methadone treatment program retention
S. Kelly1, R. P. Schwartz1, K. E. O’Grady2, B. S. Brown3, 1Friends Research Institute, Baltimore, MD, 2University of Maryland, College Park, MD, 3University of North Carolina, Wilmington, NC

127 Satisfaction with methadone treatment centers of heroin-dependent patients who show poor response to this treatment
J. Pérez de los Cobos, N. Siñol, J. Trujols, F. Batlle, M. Cardús, A. Rodríguez, Addictive Behaviors Unit (Psychiatry Department), Hospital de la Santa Creu i Sant Pau, Barcelona, Spain

128 The contribution of the quality of staff-patients’ relationships to patients’ satisfaction with methadone service
S. Levit1, M. Schiff2, R. C. Moreno3, 1Methadone Clinic in Jerusalem, Jerusalem, Israel, 2School of Social Work, Hebrew University, Jerusalem, Israel, 3Central Bureau of Statistics, Jerusalem, Israel

129 The relation between illicit drug use in methadone maintenance treatment patients, psychopathic aspects and sense of coherence
Y. Abramsohn, D. Potik, E. Peles, S. Schreiber, M. Adelson, Adelson Clinic, Tel-Aviv Sourasky Medical Center, Tel Aviv, Israel

130 Use of complementary and alternative therapies among methadone maintenance patients
C. L. Masson1, L. Coffin2, N. Pepper1, C. McKnight2, A. Morganstern1, A. Jordan2, D. C. Des Jarlais2,3, D. C. Perlman2,3, 1Psychiatry, University of California, San Francisco, CA, 2Beth Israel Medical Center, New York, NY, 3NDRI, Inc., New York, NY

131 Distribution of chronic venous disorders in a methadone-maintenance-treated sample
B. Pieper1, T. N. Templin1, R. S. Kirsner2, T. J. Birk1, 1College of Nursing, Wayne State University, Detroit, MI, 2School of Medicine, University of Miami, Miami, FL

132 Medical care utilization and opiate dependence
J. Fahey, M. Hillhouse, J. Jenkins, M. Torrington, C. Domier, W. Ling, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA

133 “For my daughter”: Interpersonal motivators of heroin cessation in a community-based sample

134 Quality of life in inpatients undergoing an opioid maintainance therapy after release from an addiction clinic
B. Winklbaur, R. Loipl, S. Klug, V. Metz, D. Radler, G. Fischer, Psychiatry and Psychotherapy, Medical University Vienna, Vienna, Austria
2:00 Developmental trajectories of HIV sexual risk behaviors from adolescence to young adulthood
Y. D. Huang, D. Murphy, Y. Hser, Integrated Substance Abuse Programs, University of California, Los Angeles, CA

2:15 Sustained abstinence in adolescence is associated with future economic well-being among high-risk adolescents
B. Griffin, R. Ramchand, M. O. Edelen, D. McCaffrey, A. Morral, RAND Corporation, Arlington, VA

2:30 Early childhood aggressive behavior, initial tobacco exposure opportunity and transition from opportunity to first tobacco use: A prospective study in urban African American youth
Y. Wang¹, N. S. Ialongo², ¹School of Medicine, University of Maryland at Baltimore, Baltimore, MD, ²Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

2:45 Dispelling the myth of smart drugs: Cannabis use problems and nonmedical use of prescription stimulants for studying
A. Arria¹, H. Wilcox², K. Caldeira¹, K. Vincent¹, E. Wish¹, K. O’Grady³, ¹Center for Substance Abuse Research, University of Maryland, College Park, MD, ²Psychiatry, Johns Hopkins School of Medicine, Baltimore, MD, ³Psychology, University of Maryland, College Park, MD

3:00 Anxious arousal and anhedonic depression symptoms and the frequency of current marijuana use: Testing the mediating role of marijuana use coping motives among active users
K. Johnson¹, M. O. Bonn-Miller²³, T. M. Leyro¹, M. J. Zvolensky¹, ¹Psychology, University of Vermont, Burlington, VT, ²Center for Health Care Evaluation, VA Palo Alto Healthcare System, Palo Alto, CA, ³Psychiatry, Stanford University, Stanford, CA

3:15 Conduct disorder predicts early but not late onset cocaine use and dependence: Evidence from the Family Study of Cocaine Dependence in St. Louis
N. Presnall, J. Strickland, L. Cottler, L. Bierut, Psychiatry, Washington University in St. Louis, Saint Louis, MO

3:30 Impact of adolescents’ exposure to negative life events, poverty and war in Israel
M. Schiff¹, R. Benbenishty², R. B. Hamburger¹, ¹School of Social Work, Hebrew University and Columbia University, Jerusalem, Israel, ²School of Social Work, Hebrew University and Bar Ilan University, Jerusalem, Israel

3:45 Adolescent outpatient substance abuse treatment: Are manual-guided interventions superior to usual care?
R. Ramchand¹, A. R. Morral¹, D. F. McCaffrey¹, M. Dennis², ¹RAND, Arlington, VA, ²Chestnut Health Systems, Bloomington, IL
GABBING ABOUT GABA

Chairs: Donna Platt and Wouter Koek

2:00  **GABA-A receptor subtype mechanisms in the discriminative stimulus effects of ethanol in monkeys**
      D. Platt¹, M. Van Linn², S. Rallapalli², T. Clayton², J. Cook², ¹Harvard Medical School/NE Primate Research Center, Southborough, MA, ²University of Wisconsin-Milwaukee, Milwaukee, WI

2:15  **A glutamatergic role in withdrawal from benzodiazepines as detected via drug discrimination analysis**
      N. A. Ator¹, S. J. Kohut¹,², ¹Psychiatry & Behavioral Sciences, Johns Hopkins School of Medicine, Baltimore, MD, ²Psychology, American University, Washington, DC

2:30  **The role of GABA-A receptors in sex differences in cocaine-stimulated locomotion**
      N. Siegal, D. Dow-Edwards, Physiology and Pharmacology, State University of New York Downstate College of Medicine, Brooklyn, NY

2:45  **Reversible inactivation of the basolateral amygdala, but not the dorsolateral caudate-putamen, attenuates the consolidation of cocaine-cue associative learning in an animal model of relapse**
      A. Gabriele, A. M. Pacchioni, R. E. See, Neurosciences, Medical University of South Carolina, Charleston, SC

3:00  **Opiate history sensitizes dorsal raphe serotonin neurons to GABAergic synaptic inputs following stress-induced reinstatement**
      J. W. Lunden, D. R. Staub, E. L. Freeman-Daniels, L. G. Kirby, Anatomy and Cell Biology and Center for Substance Abuse Research, Temple University School of Medicine, Philadelphia, PA

3:15  **GHB- and baclofen-induced hypothermia in mice: Interactions with the GABA-B receptor positive modulator CGP7930, the GABA-B receptor antagonist CGP35348, and the NOS inhibitor L-NAME**
      W. Koek¹,², P. S. Campos², C. P. France²,¹, K. Cheng³, K. C. Rice³, ¹Psychiatry, University of Texas Health Science Campsu, San Antonio, TX, ²Pharmacology, University of Texas Health Science Center, San Antonio, TX, ³Chemical Biology Research Branch, NIDA, Bethesda, MD

3:30  **The posterior cingulate: A functional and structural correlate of chronic administration of the GABA B agonist, baclofen in smokers**
      T. Franklin¹, Z. Wang¹, D. Harper¹, K. Kampman¹, Y. Li¹, W. Jens¹, R. Viana¹, M. Goldman¹, J. Suh¹, J. Detre², C. O’Brien¹, A. Childress¹, ¹Psychiatry, University of Pennsylvania, Philadelphia, PA, ²Radiology, University of Pennsylvania, Philadelphia, PA

3:45  **Comparative neurochemical analysis of accumbens and ventral tegmentum during “speedball,” cocaine and heroin self-administration**
      S. E. Hemby¹, S. McIntosh¹, K. Egan¹, B. Hormann¹, C. Co¹, L. Parsons², ¹Physiology and Pharmacology, Wake Forest University, Winston-Salem, NC, ²Committee on the Neurobiology of Addictive Disorders, The Scripps Research Institute, La Jolla, CA

*BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS*
Symposium XIII  
Rose Ballroom B
2:00 - 3:00 PM

RISK MANAGEMENT AND POST-MARKETING SURVEILLANCE OF CNS DRUGS

Chair: Robert L. Balster

2:00  Introduction  
Robert L. Balster, Virginia Commonwealth University, Richmond, VA

2:05  Monitoring risk: Post-marketing surveillance and signal detection  
Richard Dart, Denver Health, Rocky Mountain Poison and Drug Center, Denver, CO

2:25  What constitutes a signal: Quantitative and qualitative aspects  
Sidney Schnoll, Pinney Associates, Bethesda, MD

2:45  Recommendations and conclusions of the expert panel  
Charles Schuster, Chris-Ellyn Johanson, CRS Associates, LLC, Chicago, IL

Oral Communications 16  
Bonanza
2:00 - 3:00 PM

GENES AND MOLECULES: THEY’RE IN OUR CARDS

Chairs: Nadezhda A. German and Ella M. Nikulina

2:00  Mu-opioid receptor A118G polymorphism in healthy volunteers affects HPA-axis ACTH stress response to metyrapone  
E. A. Ducat, B. Ray, G. Bart, Y. Umemura, J. Varon, A. Ho, M. J. Kreek, Laboratory of the Biology of Addictive Disease, Rockefeller University, New York, NY

2:15  Impact of CYP2D6 genotype on the pharmacodynamic effects of oxycodone in humans: A retrospective analysis  

2:30  Des-formylflustrabromine and its analogs as positive allosteric modulators of α4β2 neuronal nicotinic receptors  
N. A. German1, J. S. Kim1, A. Pandya2, M. Weltzin2, M. Schulte2, R. A. Glennon1, 1Medicinal Chemistry, Virginia Commonwealth University, Richmond, VA, 2Chemistry and Biochemistry, University of Alaska Fairbanks, Fairbanks, AK

2:45  Up-regulation of brain-derived neurotrophic factor in the ventral tegmental area induces FosB/ΔFosB immunoreactivity in mesolimbic projections and facilitates sensitization after social stress  
E. M. Nikulina1,2, S. Fanous2, C. E. Bass3, X. Ren3, E. F. Terwilliger1, R. P. Hammer, Jr1,2, 1Basic Medical Sciences, University of Arizona, Phoenix, AZ, 2Tufts University, Boston, MA, 3Harvard Medical School, Boston, MA

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
Symposium XIV

DEVELOPMENT OF PROTEIN-BASED PHARMACOTHERAPIES FOR DRUG ADDICTION

Chairs: Thomas R. Kosten and C. Nora Chiang

3:15  Cocaine and nicotine vaccines: Human studies and pre-clinical improvements
      Thomas R. Kosten, Baylor College of Medicine, Houston, TX

3:35  Active and passive immunization for treating methamphetamine abuse
      W. B. Gentry, University of Arkansas for Medical Science, Little Rock, AR

3:55  Bioengineered human butyrylcholinesterase as a protein therapeutic for cocaine addiction
      William S. Brimijoin, Mayo Foundation, Rochester, MN

Oral Communications 17

DRUGS FOUND IN SPADES IN CLUBS

Chairs: Danielle C. Ompad and Rodney J. Irvine

3:15  The effects of sublingual Salvinorin A, a naturally occurring kappa opioid receptor agonist, in humans
      J. Mendelson¹, J. C. Lopez¹, M. J. Baggott¹,³, K. Flower¹, E. Everhart², T. Munro⁴, B. Cohen⁴,
      G. Galloway¹, ¹Addiction Pharmacology, California Pacific Medical Center Research Institute,
      San Francisco, CA, ²Psychiatry, University of California, San Francisco, CA, ³Neuroscience,
      University of California Berkeley, Berkeley, CA, ⁴Psychiatry, Harvard Medical School,
      Belmont, MA

3:30  Trends in ecstasy seizures and purity of seized ecstasy in Canada
      B. J. Sauvé, K. Richard, Office of Research and Surveillance, Health Canada, Ottawa, ON,
      Canada

3:45  Availability and use of club drugs in New York City: A multi-level analysis
      D. C. Ompad¹, S. Galea², V. Nandi¹, D. Vlahov¹, ¹Center for Urban Epidemiologic Studies,
      New York Academy of Medicine, New York, NY, ²School of Public Health, University of
      Michigan, Ann Arbor, MI

4:00  An objective quantitative method of monitoring illicit drug use
      R. J. Irvine¹, C. Kostakis², P. Felgate², J. M. White¹, ¹Pharmacology, University of Adelaide,
      Adelaide, SA, Australia, ²Forensic Sciences, Department of Justice, Adelaide, SA, Australia

CPDD BUSINESS MEETING
(Members Only)

DINNER AND DANCING

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
POSTER SESSION IV (Breakfast)  

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

Set-up time begins Wednesday no earlier than 4:30 PM  
Must be removed by Thursday no later than 1:30 PM  

BENZODIAZEPINES  

1 Changes in pregnanolone discriminative stimulus as a function of training dose in rats  
A. K. Eppolito, L. R. Gerak, Pharmacology, University of Texas Health Science Center San Antonio, San Antonio, TX  

2 Differential attenuation of the discriminative stimulus effects of benzodiazepines and neuroactive steroids by flumazenil or pentylenetetrazole in diazepam-treated rhesus monkeys  
L. R. Gerak, C. P. France, Pharmacology, University of Texas Health Science Center, San Antonio, TX  

3 Role of GABA<sub>A</sub> receptor subtypes in benzodiazepine self-administration by rhesus monkeys  
B. D. Fischer<sup>1</sup>, D. M. Platt<sup>1</sup>, M. L. Van Linn<sup>2</sup>, S. Rallapalli<sup>2</sup>, T. Clayton<sup>2</sup>, J. M. Cook<sup>2</sup>, J. K. Rowlett<sup>1</sup>, 1Harvard Medical School/New England Primate Research Center, Southborough, MA, 2Chemistry, University of Wisconsin, Milwaukee, Milwaukee, WI  

4 Abuse liability of chronic hypnotic use in insomniacs  
S. Randall, T. Roehrs, R. Maan, T. Roth, Sleep Disorders & Research Center, Henry Ford Health System, Detroit, MI  

5 Absence of rebound insomnia following chronic hypnotic use  
T. Roehrs, S. Randall, R. Maan, T. Roth, Sleep Disorders & Research Center, Henry Ford Health System, Detroit, MI  

6 Neuronal correlates of oral zolpidem administration: Magnetic resonance imaging studies in healthy volunteers  
S. C. Licata<sup>1</sup>, S. B. Lowen<sup>1</sup>, R. R. MacLean<sup>1</sup>, D. M. Penetar<sup>1</sup>, B. B. Frederick<sup>2</sup>, S. E. Lukas<sup>1,2</sup>, 1Behavioral Psychopharmacology Research Laboratory, McLean Hospital/Harvard Medical School, Belmont, MA, 2Brain Imaging Center, McLean Hospital/Harvard Medical School, Belmont, MA  

7 Progesterone modulation of triazolam effects in healthy women  
S. Babalonis<sup>1,3</sup>, J. A. Lile<sup>1</sup>, C. A. Martin<sup>2</sup>, T. H. Kelly<sup>1,2,3</sup>, 1Behavioral Science, University of Kentucky, Lexington, KY, 2Psychiatry, University of Kentucky, Lexington, KY, 3Psychology, University of Kentucky, Lexington, KY  

8 Is pregabalin (Lyrica®) a drug of abuse or protection against drug abuse? A comparison with gabapentin within the Norwegian prescription database  
J. G. Bramness<sup>1,3</sup>, P. Sandvik<sup>2</sup>, A. Engeland<sup>3</sup>, S. Skurtveit<sup>1</sup>, 1Centre for Addiction Research, University of Oslo, Oslo, Norway, 2Norwegian University of Science and Technology, Trondheim, Norway, 3Pharmacoepidemiology, Norwegian Institute of Public Health, Oslo, Norway  

HALLUCINOGENS  

9 Comparative pharmacology of dextromethorphan and triazolam  
C. J. Reissig<sup>1</sup>, L. P. Carter<sup>2</sup>, M. Z. Mintzer<sup>1</sup>, M. W. Johnson<sup>1</sup>, R. R. Griffiths<sup>1</sup>, 1Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD, 2Clinical Research and Development, Jazz Pharmaceuticals Inc., Palo Alto, CA
10 Discriminative stimulus effects of the hallucinogen 5-methoxy-N-isopropyl-N-methyltryptamine
M. B. Gatch, T. Carbonaro, M. Rutledge, C. Elsken, M. J. Forster, Pharmacology and Neuroscience, University of North Texas Health Science Center, Fort Worth, TX

11 Tolerance development to hallucinogen-elicited head twitch behavior in mice
W. E. Fantegrossi, Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR

12 Behavioral and mechanistic studies of the hallucinogens DiPT and 4-OH-DiPT
T. Carbonaro, T. Machu, M. B. Gatch, Pharmacology and Neuroscience, University of North Texas Health Science Center, Fort Worth, TX

COCAINE: ANIMALS II

13 The effects of chronic cocaine on delay-discounting in rats
K. L. Dandy1, J. Miller1, M. Gatch1,2, 1Psychology, Texas Christian University, Fort Worth, TX, 2Pharmacology and Neuroscience, University of North Texas Health Science Center, Fort Worth, TX

14 Progesterone attenuates chronic cocaine-induced rearing responses but not dendritic spine increases in the nucleus accumbens core of female rats
S. E. Diaz1,2, S. Nygard1,2, S. Jenab1,2, V. Quinones-Jenab1,2, 1Psychology, Graduate Center of New York, City University of New York, New York, NY, 2Psychology, Hunter College, New York, NY

15 Effect of sex and estrous on choice between food and cocaine in male and female rats
K. A. Kerstetter, M. A. Wade, T. E. Kippin, Psychology and Neuroscience Research Institute, University of California, Santa Barbara, Santa Barbara, CA

16 Progesterone metabolite allopregnanolone attenuates the escalation of cocaine-seeking behavior in female rats
J. J. Anker, M. E. Carroll, University of Minnesota, St Paul, MN

17 Effects of the combination of metyrapone and oxazepam on cue-induced reinstatement of cocaine seeking
C. Keller1, M. Vaswani2,1, G. F. Guerin1, N. E. Goeders1, 1Louisiana State University Health Sciences Center, Shreveport, LA, 2All India Institute of Medical Sciences, New Delhi, India

18 Protective effects of environmental enrichment on cocaine-seeking behavior during abstinence

19 Effectiveness of cocaine esterase against cardiovascular toxicity and lethality produced by intravenous administration of cocaine in rats
M. C. Ko1,2, D. Narasimhan1, R. K. Sunahara1, J. H. Woods1, 1Pharmacy, University of Michigan, Ann Arbor, MI, 2Psychology and Institute of Neuroscience, National Cheng Chi University, Taipei City, Taiwan

20 D-cycloserine delays reacquisition of cocaine self-administration by augmenting consolidation of extinction learning
B. A. Nic Dhonnchadha1, R. D. Spealman2, K. M. Kantak1, 1Psychology, Boston University, Boston, MA, 2New England Primate Research Center, Harvard Medical School, Southborough, MA

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
21 A new broad-spectrum anti-methamphetamine monoclonal antibody reverses acute METH effects in rats
   W. B. Gentry¹, S. M. Owens², J. C. Frank³, E. M. Laurenzana², ¹Anesthesiology, Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR, ²Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR, ³College of Medicine, University of Arkansas for Medical Sciences, Little Rock, AR

COCOAINE: HUMAN

22 Effects of modafinil on sleep architecture in chronic cocaine users
   P. Morgan¹, E. Pace-Schott², R. Stickgold², R. T. Malison¹, ¹Psychiatry, Yale University, New Haven, CT, ²Psychiatry, Harvard University, Boston, MA

23 Valproate treatment enhances cue-induced cocaine craving
   M. S. Reid, E. Weinstein, V. Thakkar, Psychiatry, New York University, New York, NY

24 Safety of oral aripiprazole alone and in combination with intravenous cocaine in humans
   L. Middleton¹, M. Lofwall¹,², P. A. Nuzzo¹, S. L. Walsh¹,², ¹Behavioral Science, Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY, ²Psychiatry, University of Kentucky, Lexington, KY

25 The acetylcholinesterase inhibitor donepezil modifies cocaine-induced cardiovascular and subjective effects
   K. Grasing¹,², D. Mathur¹, T. F. Newton³, C. DeSouza¹, ¹Substance Abuse Research Laboratory, Kansas City VA Medical Center, Kansas City, MO, ²Clinical Pharmacology, University of Kansas School of Medicine, Kansas City, KS, ³Psychiatry and Behavioral Science, Baylor College of Medicine, Houston, TX

26 Female vs. male prolactin response to dynorphin A1-13 in normal volunteer and cocaine-dependent subjects
   G. Bart¹,², E. Ducat¹, B. Ray¹, J. Varon¹, J. Cassin¹, A. Ho¹, M. Kreek¹, ¹The Laboratory of the Biology of Addictive Diseases, The Rockefeller University, New York, NY, ²Medicine, Hennepin County Medical Center, Minneapolis, MN

27 Employment-based abstinence reinforcement as a maintenance intervention for the treatment of persistent cocaine use in methadone patients with 24-month follow-up
   A. DeFulio, W. D. Donlin, C. J. Wong, K. Silverman, Johns Hopkins University School of Medicine, Baltimore, MD

28 Consistency of self-reported drug use and urine drug screening for homeless men and women in a cocaine dependence treatment program
   M. Burns¹, J. B. Milby¹, D. Wallace², J. E. Schumacher¹, S. Mennemeyer¹, R. E. Vuchinich¹, ¹University of Alabama at Birmingham, Birmingham, AL, ²RTI International, Raleigh, NC

29 Community reinforcement approach for cocaine dependence in a community setting: Individual- vs. group-based intervention
   R. Secades-Villa¹, E. Sánchez-Hervás², F. Zacarés Romaguera¹, O. García-Rodriguez³, F. J. Santonja Gómez⁴, G. García Fernandez¹, ¹Psychology, University of Oviedo, Oviedo, Spain, ²Dept 10, Valencia State Health Agency, Valencia, Spain, ³Clinical Psychology, University of Barcelona, Barcelona, Spain, ⁴Miguel Hernández University, Elche, Spain

ADOLESCENTS II

30 Does crack cocaine increase sexual desires? Perceptions of HIV-positive crack cocaine users and gender differences
   L. Metsch¹, G. Cardenas¹, E. Valverde³, C. Bell³, L. Gooden¹, E. Scharf², C. del Rio², A. Rodriguez¹, ¹University of Miami, Miami, FL, ²Emory University, Atlanta, GA, ³Centers for Disease Control and Prevention, Atlanta, GA
**Thursday, June 25, 2009**

31. Developing science-based treatment for opioid-dependent youth: Lessons learned  
S. K. Moore\(^1,2\), L. A. Marsch\(^1,2\), \(^1\)Center for Technology and Health, National Development and Research Institutes, Inc., New York, NY, \(^2\)Behavioral Science Research, St. Luke’s-Roosevelt Hospital, New York, NY

32. Temporal and probabilistic discounting in adolescent substance users and controls  
S. K. Mikulich-Gilbertson\(^1,2\), L. L. Thompson\(^1\), T. J. Crowley\(^1\), \(^1\)Psychiatry, University of Colorado Denver, Aurora, CO, \(^2\)Biometrics/Informatics, University of Colorado Denver, Aurora, CO

33. Moderators of the relationship between risk-taking propensity, substance use, and other risk behaviors in early adolescents  
F. L. Wang\(^1\), L. MacPherson\(^1\), E. K. Reynolds\(^1\), N. Calvin\(^1\), S. Daughters\(^1\), J. Cassidy\(^1\), L. Mayes\(^2\), C. W. Lejuez\(^1\), \(^1\)Psychology, University of Maryland, College Park, College Park, MD, \(^2\)Child Study Center, Yale University School of Medicine, New Haven, CT

34. Substance-dependent antisocial boys: Brain processing of reward/loss  
T. J. Crowley\(^1\), M. Dalwani\(^1\), S. K. Mikulich-Gilbertson\(^1\), Y. Du\(^1\), K. Raymond\(^1\), M. T. Banich\(^1,2\), \(^1\)University of Colorado Denver, Denver, CO, \(^2\)University of Colorado Boulder, Boulder, CO

35. Reward-seeking task performance: A validation study  
D. C. Lee, G. Robbins, T. H. Kelly, Behavioral Science, University of Kentucky, Lexington, KY

36. Amygdala volumes and craving in adolescent marijuana users  
C. B. Padula\(^1\), T. McQueen\(^1\), J. Price\(^1\), K. L. Medina\(^1\), S. F. Tapert\(^2\), \(^1\)University of Cincinnati, Cincinnati, OH, \(^2\)University of California, San Diego, La Jolla, CA

37. Changes in HPA axis function and psychiatric symptoms in adolescent methamphetamine users  
G. R. King\(^1\), D. Alicata\(^2\), C. Cloak\(^1\), I. Chin\(^1\), J. Spiess\(^2\), L. Chang\(^1\), \(^1\)Medicine, University of Hawaii, Honolulu, HI, \(^2\)Psychiatry, University of Hawaii, Honolulu, HI

38. Attention-deficit/hyperactivity disorder and nicotine withdrawal symptoms among treatment-seeking adolescent smokers  
A. L. Lewis\(^1\), K. M. Gray\(^1\), M. J. Carpenter\(^1\), N. L. Baker\(^1\), E. M. Klintworth\(^1\), A. S. Leinbach\(^1\), H. P. Upadhyaya\(^1,2\), \(^1\)Medical University of South Carolina, Charleston, SC, \(^2\)Eli Lilly & Company, Indianapolis, IN

**ALCOHOL**

39. Kudzu extract treatment does not increase the intoxicating effects of alcohol in human volunteers  
S. Lukas, R. R. MacLean, D. Lee, D. M. Penetar, Psychiatry, McLean Hospital/Harvard Medical School, Belmont, MA

40. Zolmitriptan and its relationship to the aggression-heightening effects of alcohol  
J. Gowin, S. D. Lane, F. G. Moeller, J. Steinberg, A. Swann, University of Texas Health Science Center Houston, Houston, TX

41. Dopamine and serotonin transporter availability during acute alcohol withdrawal: Effects of comorbid tobacco smoking  
K. Cosgrove\(^1,2\), E. Frohlich\(^1,2\), S. Stiklus\(^1,2\), B. Pittman\(^1\), G. Tamagnan\(^3\), R. Baldwin\(^1,2\), F. Bois\(^1,2\), J. Seibyl\(^1\), J. Krystal\(^1,2\), S. O’Malley\(^1\), J. Staley\(^1,2\), \(^1\)Psychiatry, Yale University School of Medicine, New Haven, CT, \(^2\)VA Connecticut Healthcare System, West Haven, CT, \(^3\)Institute for Neurodegenerative Disorders, New Haven, CT

42. Patterns of alcohol consumption among college football tailgaters  
L. J. Merlo\(^1,2\), A. M. Stone\(^2\), A. Holtzman\(^2\), C. Klingman\(^2\), K. Alvarez\(^2\), R. Gilbertson\(^2\), R. Prather\(^2\), A. Bibbey\(^2\), F. Kobeissy\(^2\), N. Graham\(^2\), M. S. Gold\(^2\), \(^1\)Psychiatry, Washington University, St. Louis, MO, \(^2\)Psychiatry, University of Florida, Gainesville, FL
43 **Identifying poor prognosis patients in cocaine-alcohol dependence treatment trials**  

44 **Alcohol and substance use in traffic accident victims of Porto Alegre, Brazil**  
R. De Boni¹, D. Benzano¹, G. Baldisserotto¹, B. Holmer¹, M. Soibelman¹, S. Porto Jr², T. Sousa², E. Correa², F. Santos³, J. Goldim³, F. Pechansky¹,³, Psychiatry, CPAD- Federal University Rio Grande do Sul, Porto Alegre, Brazil, ²Economic Science, Federal University Rio Grande do Sul, Porto Alegre, Brazil, ³Clinicas Hospital, Porto Alegre, Brazil

45 **Pattern of alcohol use and associated factors: A cross-sectional study in a French emergency room**  
R. Debrabant¹, F. Serre¹, M. Fatseas¹,², C. Denis¹, P. Thoueilles², B. Fleury¹, M. Auriacombe¹,², ¹Addiction Psychiatry EA4139/INSERM-IFR99, Universite Victor Segalen Bordeaux 2, Bordeaux, France, ²Addiction Medicine, CHU de Bordeaux, Bordeaux, France

46 **A study of substance abuse in the Asian Indian community in Ontario, Canada**  
M. Hussain¹,², A. Kaur², ¹Addiction Services, William Osler Health Centre, Brampton, ON, Canada, ²South Asian Addiction Program, Punjabi Community Health Services, Brampton, ON, Canada

47 **Alcohol abuse and dependence criteria among students at two schools in Puerto Rico: A latent class analysis**  

48 **Validation of triage criteria for deciding which apparently inebriated persons require emergency department care**  
K. Flower¹, J. Mendelson¹, J. Sussman², N. Tangherlini³, M. Pletcher², ¹Addiction Pharmacology Research Lab, California Pacific Medical Center Research Institute, San Francisco, CA, ²Epidemiology and Biostatistics, University of California, San Francisco, CA, ³San Francisco Fire Department/EMS, City and County of San Francisco, San Francisco, CA

49 **Reduction of addiction severity in alcohol and drugs: A bivariate multilevel modeling approach**  
M. Hara¹,², Y. Huang¹, Y. Hser¹, ¹Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA, ²Graduate School of Education and Information Studies, University of California, Los Angeles, Los Angeles, CA

**EPIDEMIOLOGY II**

51 **The Mexican migration to the U.S. and substance use in Northern Mexico**  
G. Borges¹, M. Medina-Mora¹, R. Orozco¹, C. Fleis¹, C. Cherpitel³, J. Breslau³, ¹Epidemiology, Instituto Nacional de Psiquiatria, Mexico, Mexico, ²Alcohol Research Group, Emeryville, CA, ³Center for Reducing Health Disparities, University of California, Davis, School of Medicine, Sacramento, CA

52 **Substance use of French university students at exam periods: A cross-sectional survey in Bordeaux**  
J. Alexandre¹, M. Fatseas¹, C. Denis¹, E. Lavie¹, B. Merle², F. Touchard¹, S. Maurice-Tison², M. Auriacombe¹, ¹Addiction Psychiatry EA4139/INSERM-IFR99, Universite Victor Segalen Bordeaux 2, Bordeaux, France, ²INSERM U330, Universite Victor Segalen Bordeaux 2, Bordeaux, France, ³Student Health Care Service, Universite Bordeaux 4, Bordeaux, France

53 **Factors of drug abuse for Black and Caribbean emerging adults**  
B. Longmire-Avital, ¹Public Health Solutions, New York, NY, ²National Development and Research Institutes, Inc., New York, NY
Irish travellers and drug use
M. A. Van Hout, Health, Waterford, Waterford, Ireland

South Asian women and domestic violence: Isolation, social support, help-seeking, and addressing risks of co-occurrence of substance abuse among intimate partners
N. Mahapatra, School of Social Work, The University of Texas at Austin, Austin, TX

Back out there: Subject retrieval among recovering populations
N. J. Tiburcio, B. D. Johnson, National Development and Research Institutes, Inc., New York, NY

Conditional odds of recent drug use disorders in relation to PTSD history: USA, 2004-5
K. M. Bohnert, N. Breslau, J. C. Anthony, Epidemiology, Michigan State University, East Lansing, MI

Stigma feelings attached to drug dependence and depression vary as a function of medical students' own depression history
V. Cruz1,2, G. F. Alvarado1,3, D. Barondess1, M. Radovanovic1,4, J. C. Anthony1, 1Epidemiology, Michigan State University, East Lansing, MI, 2Office of Epidemiology, Peruvian National Institute of Mental Health, Lima, Peru, 3Cayetano Heredia Peruvian University, Lima, Peru, 4Psychiatric Clinic Rudnik, Ljubljana, Slovenia

Stigma attached to drug dependence and depression: Perceptions of future health professionals
B. K. Ahmedani1,4, S. P. Kubiak1, C. F. Rios-Bedoya2, M. A. Mickus3, J. C. Anthony4, 1School of Social Work, Michigan State University, East Lansing, MI, 2Army of Epidemiology, Peruvian National Institute of Mental Health, Lima, Peru, 3Psychiatry, Michigan State University, East Lansing, MI, 4Epidemiology, Michigan State University, East Lansing, MI

Ethnicity and recent-onset tobacco smoking: Epidemiological evidence, 2004-06
D. A. Barondess, M. Radovanovic, J. C. Anthony, Epidemiology, Michigan State University, College of Human Medicine, East Lansing, MI

Race and gender trends of CPDD members and meeting attendees
G. Widner, R. K. Price, Psychiatry, Washington University School of Medicine, St. Louis, MO

Criminal Justice

The impact of the Inmate Pre-Release Assessment on rural inmate's 12-step attendance and treatment entry

Examining the relationship between risk of criminal recidivism and substance use and treatment history in a sample of probationers
A. J. Trotman1, M. E. Wilson2, F. S. Taxman1, 1Administration of Justice, George Mason University, Manassas, VA, 2Friends Research Institute, Baltimore, MD

Gender differences in criminal rationalization among prison-based substance abuse treatment participants nearing community re-entry
J. Mooney, C. Oser, C. Leukefeld, Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY

Strengths-based case management for drug-abusing parolees: Outcomes at three and nine months using two causal models
M. Prendergast1, J. Sacks2, L. Frisman3, M. Staton-Tindall4, L. Greenwell1, H. Lin3, 1University of California Los Angeles Integrated Substance Abuse Programs, Los Angeles, CA, 2National Development and Research Institutes, New York, NY, 3Connecticut Department of Mental Health and Addiction Services, Hartford, CT, 4University of Kentucky, Lexington, KY
Predictors of risky sexual behavior in incarcerated drug users in Sri Lanka
A. Stadlin1, L. O. Dissabandara1, S. Dias2, H. Gamini3, N. J. Loxtton4, 1School of Medical
Science, Griffith University, Southport, QLD, Australia, 2Psychiatry, University of Perideniya,
Kandy, Sri Lanka, 3Faculty of Medicine, University of Perideniya, Kandy, Sri Lanka,
4Psychology, University of Queensland, Brisbane, QLD, Australia

Deconstructing HIV interventions among female offenders
C. O’Leary, L. B. Cottler, Psychiatry, Washington University School of Medicine, St.
Louis, MO

HIV risk behaviors: Results from a randomized study of methadone maintenance for prisoners
M. E. Wilson1, T. W. Kinlock1, R. P. Schwartz1, M. S. Gordon1, K. E. O’Grady2, 1Friends
Research Institute, Baltimore, MD, 2University of Maryland College Park, College Park, MD

Cost offset analysis of an enhanced HIV intervention for rural probationers
J. L. Duvall, C. Oser, C. Leukefeld, University of Kentucky, Lexington, KY

DIAGNOSIS AND ASSESSMENT

The Addiction Potential Scale: A validation study
E. R. Grekin1, S. J. Ondersma2, D. S. Svikis3, P. K. Lam2, V. M. Connors2, 1Psychology, Wayne
State University, Detroit, MI, 2Psychiatry and Behavioral Neuroscience, Wayne State
University, Detroit, MI, 3Psychology, Virginia Commonwealth University, Richmond, VA

Development of an indirect screener for perinatal drug use (Wayne Indirect Drug Use Screener)
S. J. Ondersma1, D. S. Svikis3, P. K. Lam1, V. M. Connors1, E. R. Grekin3, 1Psychiatry and
Behavioral Neuroscience, Wayne State University, Detroit, MI, 2Psychology, Virginia
Commonwealth University, Richmond, VA, 3Psychology, Wayne State University, Detroit, MI

Reliability and validity of the Short Inventory of Problems modified for drug use
R. Saitz1, D. Allensworth-Davies2, D. M. Cheng2,1, P. C. Smith1, J. H. Samet1, 1Boston
University School of Medicine/Boston Medical Center, Boston, MA, 2Boston University
School of Public Health, Boston, MA

Effect size, time and dose-response profiles of drugs of abuse in human abuse potential studies
D. Milovan1, K. A. Schoedel1, M. K. Romach1, E. M. Sellers1,2, 1Kendle Early Stage,
Toronto, ON, Canada, 2Pharmacology, Psychiatry, and Medicine, University of Toronto,
Toronto, ON, Canada

Identifying prescription drug disorder in primary care chronic pain patients prescribed opioids:
Diagnostic characteristics of the Current Opioid Misuse Measure
E. C. Meltzer, D. Rybin, R. Saitz, J. H. Samet, S. Schwartz, S. Butler, J. Liebschutz, Section of
General Internal Medicine, Boston University Medical Center, Boston, MA

Validation of the clinical opiate withdrawal scale
D. A. Tompkins1, J. A. Harrison1, G. E. Bigelow1, R. E. Johnson2, P. J. Fudala2, L. J. Felch1,
E. C. Strain1, 1Psychiatry, The Johns Hopkins University School of Medicine, Baltimore, MD,
2Reckitt Benckiser Pharmaceuticals Inc., Richmond, VA

Inter-rater reliability and validity of DSM-IV opioid dependence in a Hmong isolate using the
Semi-Structured Assessment for Drug Dependence and Alcoholism Thai version
R. T. Malison1, R. Kalayasiri4, K. Sanichwankul6, A. Sughondhabiron4, A. Mutirangura5,
B. Pittman1, R. Gueorguieva1,3, H. Kranzler7, J. Gelernter1,2, 1Psychiatry, Yale School of
Medicine, New Haven, CT, 2Genetics, and Neurobiology, Yale School of Medicine, New
Haven, CT, 3Yale School of Public Health, New Haven, CT, 4Psychiatry, Faculty of Medicine,
Chulalongkorn University, Bangkok, Thailand, 5Anatomy, Faculty of Medicine, Chulalongkorn
University, Bangkok, Thailand, 6Suan Prung Psychiatric Hospital, Chiang Mai, Thailand,
7Psychiatry, University of Connecticut School of Medicine, Farmington, CT
77 Substance dependence criteria (DSM-IV) in daily cannabis users
L. A. Maciel, A. R. Noto, Psicobiologia, UNIFESP-EPM, São Paulo, Brazil

78 Assessment of nicotine dependence among adolescent smokers: A comparison of measures
M. J. Carpenter1, N. L. Baker1, K. M. Gray1, A. L. Lewis1, E. Klintworth1, A. Leinbach1,
H. P. Upadhyaya1, 1Medical University of South Carolina, Charleston, SC, 2Eli Lilly &
Company, Indianapolis, IN

79 Validation of Comprehensive Health Assessment Tool: An interactive, multimedia scale to assess alcohol and substance addiction severity among adolescents
K. J. Trudeau1, S. Lord1, R. A. Black1, L. Lorin1, B. Cooney1, A. Villapiano1, S. F. Butler1,
1Inflexxion, Inc., Newton, MA, 2National Development and Research Institutes, New York, NY

80 Utility of various screening instruments for attention-deficit hyperactivity disorder in research participants seeking treatment for cocaine dependence
A. L. Mahony1, S. S. Berhanet, D. J. Brooks1, J. J. Mariani1, F. R. Levin1, 1New York State
Psychiatric Institute, New York, NY, 2Columbia University, New York, NY

81 Crossvalidation and integration of four mental health screeners using item response theory
B. Riley1, B. R. Rush2, S. Castel3,4, B. Brands3, S. Velduizen2, M. Dennis1, 1Chestnut Health
Systems, Normal, IL, 2Centre for Addiction and Mental Health, Toronto, ON, Canada,
3Sunnybrook Health Sciences Centre, Toronto, ON, Canada, 4University of Toronto,
Toronto, ON, Canada, 5Health Canada, Ottawa, ON, Canada

82 Impact of recent drug use on the validation of screening tools for mental disorders
B. R. Rush1, S. Castel2, B. Brands3, S. Velduizen1, 1Centre for Addiction and Mental Health,
Toronto, ON, Canada, 2Sunnybrook Health Sciences, Toronto, ON, Canada, 3Health Canada,
Toronto, ON, Canada, 4Psychiatry, University of Toronto, Toronto, ON, Canada

THEORETICAL

83 Mathematical model of effects of first-order schedules on drug self-administration
V. L. Tsibulsky, A. B. Norman, Psychiatry, University of Cincinnati, Cincinnati, OH

84 Assessment of effort on neuropsychological testing in drug abuse research
A. M. Horton, Neuropsychology Section, Psych Associates, Bethesda, MD

85 A potential method for examining the stimulus properties of drugs under conditions comparable to those used with exteroceptive stimuli
G. M. Sizemore, D. Morgan, Psychiatry, University of Florida, Gainesville, FL

86 An in vitro pharmacological model of maintained agonist self-administration
A. B. Norman, M. K. Norman, V. L. Tsibulsky, Psychiatry, University of Cincinnati,
Cincinnati, OH

87 Development of cognitive behavioral therapy platform targeting both cocaine dependence and ADHD
D. V. Herin1, N. J. Moukaddam2, J. M. Schmitz2, P. M. McCleary2, D. V. Rinker2, C. Malcolm2,
F. R. Levin1, J. Grabowski1, 1Psychiatry, University of Minnesota, Minneapolis, MN,
2Psychiatry, University of Texas Health Science Center Houston, Houston, TX, 3Psychiatry,
Columbia University, New York, NY

88 Cocaine and well-being: Entries, exits
P. Pharo1, B. Badin de Montjoye2, P. Podevin3, 1CNRS - Université Paris Descartes, Paris,
France, 2Hôpital Cochin, Paris, France, 3Centre Hospitalier Léon Binet, Provins, France

89 Methamphetamine use: Does it increase violent sexual activity in women?
N. E. Goeders1, A. B. Hamilton2, 1Pharmacology, Toxicology and Neuroscience, Louisiana State University Health Sciences Center, Shreveport, LA, 2Psychiatry, University of California
Los Angeles, Los Angeles, CA
90 Use of an adaptive treatment research design in a CTN study of prescription opioid dependence treatment
R. D. Weiss¹, J. Potter¹, M. Byrne², C. Sullivan³, W. Ling³, ¹McLean Hospital, Belmont, MA, ²West Virginia University School of Medicine, Morgantown, WV, ³University of California Los Angeles School of Medicine, Los Angeles, CA

91 Participation in substance abuse clinical trials: Comparing gender and racial/ethnic groups
C. L. Rosa, P. G. Wakim, CCTN, NIDA, Bethesda, MD

92 Cross-country variations in illegal drug involvement and DSM-IV clinical features of drug abuse in the Americas
F. A. Fiestas¹, M. Radovanovic¹, M. E. Medina-Mora², J. Posada-Villa³, J. C. Anthony¹, ¹Epidemiology, Michigan State University, East Lansing, MI, ²Institute of Psychiatry, Mexico DF, Mexico, ³Colegio Mayor de Cundinamarca University, Bogota, Colombia

93 Assessment of addictive behavior among the elderly: What about “geriatric addiction”? M. Fatseas, R. Icick, M. Auriacombe, Addiction Psychiatry EA4139/INSERM-IFR99, Universite Victor Segalen Bordeaux 2, Bordeaux, France

94 Drug court and treatment: An ethnographic exploration
K. Kaye, ¹Social and Cultural Analysis, New York University, New York, NY, ²Behavioral Sciences Training in Drug Abuse Research, Public Health Solutions, New York City, NY

95 Legalization of marijuana use in México
A. Gutierrez-Padilla², O. Campollo¹, ¹Center of Studies on Alcohol and Addictions, University of Guadalajara, Guadalajara, Mexico, ²Unidad de Cuidados Intensivos Neonatales, Antiguo Hospital Civil de Guadalajara, Guadalajara, Mexico

96 Re-entry strategies for California ex-offenders
W. Tsai¹, D. Watson¹, E. Williams², ¹University of California Los Angeles/Friends Research Institute, Torrance, CA, ²Regional Congregations Neighborhood Organizations, Los Angeles, CA

97 Methods for assessing the cumulative treatment effect on subsequent drug use abstinence
L. Li, E. Evans, Y. Hser, University of California Los Angeles Integrated Substance Abuse Programs, Los Angeles, CA

98 Measuring the impact of change: Developing statewide Process Improvement Performance Measurement systems
J. H. Ford¹, A. Quanbeck¹, C. Kraefè, M. Stathum³, T. Molfenter¹, ¹University of Wisconsin-Madison, Madison, WI, ²South Carolina Department of Alcohol and Other Drug Abuse Services, Columbia, SC, ³Oklahoma Department of Mental Health and Substance Abuse Services, Oklahoma City, OK

99 The power of eliciting consumer input to design effective treatment systems
L. Madden¹, A. Quanbeck², S. O. Farnum², J. H. Ford², S. Ball¹, ¹APT Foundation and Yale University, New Haven, CT, ²University of Wisconsin, Madison, WI

100 Times, Organizations, Offices, Lives and Systems Evolution Project
M. Neely², C. Branch², D. Watson¹, W. Tsai¹, D. Osborne², ¹University of California Los Angeles/Friends Research Institute, Torrance, CA, ²Los Angeles Metropolitan Churches, Los Angeles, CA
Los Angeles Youth Collaborative for substance use and violence prevention among gang-exposed youth
C. Branch², D. Osborne², C. Jones², T. Mcfollins², D. W. Watson¹, M. Mouttapa³, W. Tsai¹, A. Asghar¹, ¹University of California Los Angeles/Friends Research Institute, Torrance, CA, ²Los Angeles Metropolitan Churches, Los Angeles, CA, ³California State University at Fullerton, Fullerton, CA

Supporting Opportunities for Adolescent Recovery
H. Hatanaka¹, H. Levy¹, C. Wright¹, J. Schott¹, D. Malak-Lopez¹, F. McKinney¹, L. Cosio¹, D. Montenegro¹, E. Vasquez¹, D. Watson², M. Mouttapa³, W. Tsai², ¹Special Service for Groups/Homeless Outreach Program Family Center, Los Angeles, CA, ²University of California Los Angeles Integrated Substance Abuse Programs/Friends Research Institute, Torrance, CA, ³California State University at Fullerton, Fullerton, CA

Group Reality Therapy: Is it an effective tool in working with opioid-dependent young adults in methadone maintenance treatment?
M. Lawental Schori¹, E. Lawental²,³, L. Altus², M. Gur², ¹School of Social Policy and Practice, University of Pennsylvania, Philadelphia, PA, ²Haifa Drug Abuse Treatment Center, Haifa, Israel, ³School of Social Work, Tel Hai Academic College, Upper Galilee, Israel

Patterns of buprenorphine dose reduction in opioid-dependent patients
J. Manubay¹,², S. K. Vosburg¹,², E. Yango¹, H. D. Kleber¹,², ¹Psychiatry, Columbia University, New York, NY, ²Substance Abuse, New York State Psychiatric Institute, New York, NY

NIDA’s Clinical Trials Network delivers evidence-based treatments through comparative effectiveness research
S. Sparenborg, U. Ghitza, B. Tai, Center for the Clinical Trials Network, National Institute on Drug Abuse, Rockville, MD

A clinical trial comparison of two formulations of depot buprenorphine for pain
W. Ling, M. Hillhouse, J. Jenkins, K. Miotto, L. Mooney, M. Torrington, S. Reed, L. McGraw, D. Chim, Integrated Substance Abuse Programs, University of California, Los Angeles, CA

Clinical guidelines for the management of cannabis use disorder
A. Frewen, J. Copeland, National Cannabis Prevention and Information Centre, University of NSW, Sydney, NSW, Australia

Assessment of a process improvement initiative in substance abuse treatment settings
A. M. Williams, R. Springer, T. G. Durham, The Danya Institute, Inc., Silver Spring, MD

Building momentum for improving client engagement and retention in treatment: The California experience
B. A. Rutkowski¹, S. Gallon², R. A. Rawson¹, T. E. Freese¹, A. Bruehl³, D. Crevecoeur-MacPhail¹, W. Sugita³, K. Johnson⁴, T. Molfenter⁴, F. Cotter⁴, ¹Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA, ²Oregon Health and Science University, Portland, OR, ³Alcohol and Drug Program Administration, County of Los Angeles Department of Public Health, Alhambra, CA, ⁴University of Wisconsin-Madison, Madison, WI, ⁵SAMHSA/CSAT, Rockville, MD

Assessing addiction treatment information systems in Maryland: Gaps and redundancies
P. Sheikhhattari, T. Rice, F. A. Wagner, Center for Health Disparity Solutions, Morgan State University, Baltimore, MD
Implementation of an electronic information system to enhance practice at an opioid treatment program
M. Chu, S. A. Kritz, C. John-Hull, B. Louie, C. Madray, L. S. Brown, Medical Services, Research and Information Technology, Addiction Research and Treatment Corporation, Brooklyn, NY

Can opiate pharmacotherapy improve virological response to anti-hepatitis C treatment in former drug abusers (Injecting Drug Users)? Case report about 3 ex-IDU
L. Gourarier1, J. Jungman1, A. Gervais2, J. L. Boujenah3, S. Pol4, 1CASAT, La Terrasse / Maison Blanche, Paris, France, 2Maladies Infectieuses & Tropicales, Bichat/APH, Paris, France, 3Hépatologie, Pitié-Salpêtrière/APH, Paris, France, 4Hépatologie, Cochin/APH, Paris, France

A brief culturally sensitive HIV and hepatitis prevention intervention for urban American Indians: Development and preliminary evaluation
D. Caldwell1, J. Johnson1, J. Gryczynski1, K. Lessard2, S. Wiechelt3, S. Roth4, 1Social Research Center, Friends Research Institute, Baltimore, MD, 2Chase Brexton Health Services, Baltimore, MD, 3Social Work, University of Maryland, Baltimore County, Baltimore, MD, 4LifeLines Foundation, Baltimore, MD

Using respondent-driven sampling to enhance recruitment of dually diagnosed adolescent clinical trial participants
B. W. Holmes1, K. Pressley1, L. Haynes2, C. Tyson2, P. Riggs, MD3, 1NIDA Clinical Trials Network, Lexington Richland Alcohol and Drug Abuse Council, Columbia, SC, 2Psychiatry and Behavioral Sciences, Medical University of South Carolina, Columbia, SC, 3Health Sciences Center, University of Colorado, Denver, CO

Disseminating evidence-based practices for treating co-occurring disorders in children and their caregivers
T. E. Freese, S. Larkins, R. Rawson, J. Peck, Integrated Substance Abuse Programs, University of California, Los Angeles, Los Angeles, CA

Using Web-based technology to enhance practical applications: Increasing access to problem gambling resources

WITHDRAWN

Gender and the global drug trade: The case of incarcerated women in Lima, Peru
S. Campos, NDRI/Public Health Solutions, New York City, NY

Gender differences in employment and employment barriers among drug abusers
M. Webster1,2, M. Staton-Tindall1,2, M. Dickson1,2, C. Leukefeld1,2, J. Wilson1, 1Behavioral Science, University of Kentucky, Lexington, KY, 2Center on Drug and Alcohol Research, University of Kentucky, Lexington, KY, 3Social Work, University of Kentucky, Lexington, KY

Workforce development for faith-based substance abuse treatment providers
D. W. Watson1, B. Finnerty1, C. Branch2, T. Freese1, R. Rawson1, W. Tsai1, 1University of California Los Angeles Integrated Substance Abuse Programs, Torrance, CA, 2Los Angeles Metropolitan Churches, Los Angeles, CA

Research opportunities in NIDA’s Division of Epidemiology, Services and Prevention Research
W. Compton, K. P. Conway, Division of Epidemiology, Services and Prevention Research, National Institute on Drug Abuse, Bethesda, MD
Thursday, June 25, 2009

123 How useful is what we have? Limitations of Cochrane reviews, the case of substance treatment in pregnancy
   M. Terplan, E. J. Smith, S. Lui, Obstetrics and Gynecology, University of Chicago, Chicago, IL, Human and Health Sciences, University of Huddersfield, Queensgate, United Kingdom

124 Systematic review of computer-based treatments for drug abuse and dependence
   B. A. Moore, B. Garnet, C. Cutter, D. Barry, Psychiatry, Yale University, New Haven, CT, APT Foundation, New Haven, CT

125 The interaction between opioids and alcohol: Results from a global literature review
   B. Setnik, R. Colucci, C. Mannino, S. Siegel, L. Wase, King Pharmaceuticals®, Inc., Bridgewater, NJ, Colucci & Associates, LLC, Newtown, CT

126 HIV prevention in problem-solving courts: A review
   J. L. Sorensen, M. Chartier, S. E. Larios, J. Dilley, D. McNiel, C. Masson, J. Guydish, S. Fordwood, Psychiatry, University of California, San Francisco, CA

127 A systematic review of gender differences in HIV sexual risk behaviors among stimulant and opioid abusers
   J. S. Potter, C. S. Meade, A. T. Peterson, University of Texas Health Science Center, San Antonio, TX, McLean Hospital, Belmont, MA, Harvard Medical School, Boston, MA

128 Methamphetamine use and sexual HIV risk behavior in Cape Town, South Africa: A review of data from 8 studies (2004-2007)
   C. D. Parry, A. Pluddemann, B. J. Myers-Franchi, W. M. Wechsberg, A. J. Flisher, Alcohol and Drug Abuse Research Unit, Medical Research Council, Cape Town, South Africa, Substance Abuse Treatment Evaluations and Interventions Research, RTI International, Research Triangle Park, NC, Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa

129 What is best practice in the treatment of co-occurring substance use and post traumatic stress disorder?
   K. L. Mills, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia

 Symposium XV

SYMPOSIUM XV Rose Ballroom A
FROM TRIALS TO PRACTICE: THE IMPLICATIONS OF INCLUSION AND EXCLUSION CRITERIA IN CLINICAL TRIALS OF PHARMACOTHERAPIES TO TREAT DRUG DEPENDENCE

Chairs: Howard Chilcoat and Anne Andorn

10:00 Generalizability of clinical trials for alcohol dependence to community samples
   Carlos Blanco, New York State Psychiatric Institute/College of Physicians and Surgeons of Columbia University, New York, NY

10:25 Generalizing from laboratory and clinical studies of nicotine dependence pharmacotherapies
   Caryn Lerman, Transdisciplinary Tobacco Use Research Center, University of Pennsylvania, Philadelphia, PA

10:50 Using epidemiologic data on natural history of drug dependence to evaluate necessity of clinical trial exclusion/inclusion criteria
   Howard Chilcoat, Worldwide Epidemiology, GlaxoSmithKline, Research Triangle Park, NC
Thursday, June 25, 2009

11:15  Impact of inclusion and exclusion criteria on clinical trials of drug abuse pharmacotherapies
       Ivan Montoya, National Institute on Drug Abuse/National Institutes of Health, Bethesda, MD

11:40  Discussant
       Frank Voci, Friends Research Institute, Baltimore, MD

Oral Communications 18

PULLING THE LEVER FOR STIMULANTS: BEHAVIORAL STUDIES

Ponderosa B
10:00 AM - 12:00 PM

Chairs: Deanne Buffalari and Francesco Leri

10:00  Effect of modafinil on stress-induced cocaine seeking and cocaine cross-sensitization in laboratory rats
       F. Leri¹, Y. Zhou², M. J. Kreek², D. Jacklin¹, ¹Psychology, University of Guelph, Guelph, ON, Canada, ²Rockefeller University, New York, NY

10:15  Methylphenidate as an intravenous reinforcer in rats: Individual differences in impulsivity predict self-administration
       J. A. Marusich, M. T. Bardo, University of Kentucky, Lexington, KY

10:30  Reinstatement of nicotine-seeking behavior in rats: Effects of nicotine cues, priming, stress, and their combination
       X. Liu, Psychiatry and Human Behavior, University of Mississippi Medical Center, Jackson, MS

10:45  Role of inhibitory neurosteroids in reducing cocaine self-administration and cue-induced reinstatement
       C. D. Schmoutz¹, S. P. Runyon², N. E. Goeders¹, ¹Pharmacology, Toxicology, and Neuroscience, Louisiana State University Health Sciences Center, Shreveport, LA, ²Organic and Medicinal Chemistry, Research Triangle Institute, Research Triangle Park, NC

11:00  A novel cue reinstates extinguished cocaine-seeking behavior
       P. R. Kufahl, K. Heintzelman, C. Vargas, M. Painter, V. Routt, K. J. Thiel, J. L. Neisewander, Psychology, Arizona State University, Tempe, AZ

11:15  Stress and cue interaction in the reinstatement of cocaine-seeking in female rats
       D. Buffalari, M. W. Feltenstein, R. E. See, Neuroscience, Medical University of South Carolina, Charleston, SC

11:30  Effects of extended access and withdrawal on the reinforcing strength of cocaine using a cocaine vs. food concurrent-choice procedure in rhesus monkeys
       M. Banks¹, S. Negus¹², ¹Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA, ²Alcohol and Drug Abuse Research Center, McLean Hospital/Harvard Medical School, Belmont, MA

11:45  D-Cycloserine attenuates reactivity to smoking cues in nicotine-dependent smokers
Oral Communications 19

IMPULSIVITY AND AGGRESSION

Chairs: Joseph T. Sakai and Staci Gruber

10:00 Structural brain differences between male adolescent patients with serious substance and conduct problems and controls: Comparing two automated analytic methods and examining cortical thickness
J. T. Sakai¹, M. Dalwani¹, S. K. Mikulich-Gilbertson¹, J. Tanabe¹, K. Raymond¹, S. McWilliams¹, L. Thompson¹, M. Banich², T. J. Crowley¹, ¹University of Colorado Denver School of Medicine, Aurora, CO, ²Institute of Cognitive Science, University of Colorado Boulder, Boulder, CO

10:15 fMRI brain activation during a delay discounting task in HIV-positive adults with cocaine dependence
C. S. Meade¹,², S. B. Lowen², R. R. MacLean², S. E. Lukas², ¹Psychiatry and Behavioral Sciences, Duke University, Durham, NC, ²Psychiatry, Harvard Medical School, Belmont, MA

10:30 Neural correlates of aggressive responding in alcohol-dependent and control subjects
S. D. Lane¹, J. L. Steinberg¹, N. Rathnayaka¹, D. R. Cherek¹, L. A. Kramer², P. A. Narayana², F. G. Moeller¹, ¹Psychiatry and Behavioral Sciences, University of Texas Health Science Center, Houston, Houston, TX, ²Diagnostic and Interventional Imaging, University of Texas Health Science Center, Houston, Houston, TX

10:45 Impulsivity is correlated with white matter alterations in chronic marijuana smokers
S. Gruber¹, M. Silveri¹, M. Dahlgren¹, D. Yurgelun-Todd², ¹Neuroimaging Center/Psychiatry, McLean Hospital/Harvard Medical School, Belmont, MA, ²Brain Institute, University of Utah, Salt Lake City, UT

11:00 Temporal discounting and procrastination as predictors in a laboratory model of smoking abstinence
R. Yi, A. E. Carter, Center for Addiction Research, University of Arkansas for Medical Sciences, Little Rock, AR

11:15 Negative affect interacts with impulsivity to predict distress tolerance in a sample of inner-city substance users
J. M. Richards, C. W. Lejuez, S. B. Daughters, E. Reynolds, M. Bornovalova, Clinical Psychology, University of Maryland, College Park, College Park, MD

11:30 Substance use and aggression in the adolescent offspring of teenage mothers
N. M. De Genna, M. Cornelius, Psychiatry, University of Pittsburgh, Pittsburgh, PA

11:45 Differences in D2 receptor availability in high and low impulsive monkeys
S. Groman¹, B. Lee², R. Rivera¹, E. London², D. Jentsch¹,², ¹Psychology, University of California, Los Angeles, Los Angeles, CA, ²Psychiatry and Biobehavioral Sciences, University of California, Los Angeles, CA

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
**Symposium XVI**

**Rose Ballroom B**

**10:00 - 11:00 AM**

**PRECLINICAL RESEARCH ON STRESS AND ADDICTION**

Chairs: John R. Mantsch and Klaus A. Miczek

10:00  *The vicious cycle of stress and drug use: Glucocorticoid-dependent plasticity and CRF systems in cocaine addiction*

   John R. Mantsch, Marquette University, Milwaukee, WI

10:20  *Episodic and continuous social stress: Divergent changes in cocaine reward and tegmental BDNF*

   Klaus A. Miczek, Tufts University, Medford, MA

10:40  *Pro-addictive actions of dynorphin opioids*

   Charles Chavkin, University of Washington, Seattle, WA

**Symposium XVII**

**Rose Ballroom B**

**11:15 AM - 12:15 PM**

**COCAINE COCKTAILS: THE IMPACT OF CONCURRENT DRUG USE ON TREATMENT OF COCAINE**

Chairs: Joy Schmitz and Alison Oliveto

11:15  *Comorbid opioid dependence status and treatment response to medications for cocaine dependence: The example of disulfiram*

   Alison Oliveto, UAMS, Little Rock, AR

11:35  *Challenges in evaluating novel treatments for combined cocaine and alcohol*

   Kyle M. Kampman, University of Pennsylvania, Philadelphia, PA

11:55  *The influence of concurrent marijuana use on treatment of cocaine dependence*

   Joy Schmitz, University of Texas Medical School-Houston, Houston, TX

**BRUNCH WITH CHAMPIONS**

*Poolside Terrace*  
**12:00 - 1:30 PM**

**Symposium XVIII**

**Rose Ballroom A**

**1:30 - 3:30 PM**

**NICOTINIC CHOLINERGIC MECHANISMS IN DRUG DEPENDENCE: RECEPTOR SUBTYPES AND LIGANDS**

Chairs: William A. Corrigall and David Shurtleff

1:30  *Presynaptic nAChR subtypes that modulate dopamine release: possibilities for selective activation of α6β2*nAChRs*

   Sharon Grady, University of Colorado, Boulder, Boulder, CO

1:55  *The role of accessory subunits in modifying the function of alpha4beta2 receptors*

   Jon Lindstrom, University of Pennsylvania, Philadelphia, PA

2:20  *Modulation of nicotine receptor functional tone by therapeutic agents and endogenous factors*

   Roger Papke, University of Florida, Gainesville, FL

2:45  *The alpha5 nAChR subunit in nicotine dependence and cancer risk*

   Thorgeir Thorgeirsson, deCode, Reykjavik, Iceland
Oral Communications 20

KEEPING THE FOCUS ON ADHD

Chairs: Scott Kollins and Lisa J. Merlo

1:30  A double-blind, placebo-controlled trial of osmotic-release methylphenidate in initiating and maintaining abstinence in smokers with attention deficit hyperactivity disorder
   T. Winhusen1, E. Somoza1, G. Brigham4, D. Liu2, C. Green1, L. Covey4, I. Croghan5, L. Adler6, R. Weiss7, J. Leimberger8, D. Lewis1, E. Dorer1, 1Psychiatry, University of Cincinnati, Cincinnati, OH, 2National Institute on Drug Abuse, Bethesda, MD, 3Kaiser Permanente Northwest, Portland, OR, 4New York State Psychiatric Institute, New York, NY, 5Mayo Clinic, Rochester, MN, 6New York University, New York, NY, 7Harvard University, Belmont, MA, 8Cancer Research Institute, Duke University, Durham, NC

1:45  Prospective study of ADHD and risk for drug abuse
   K. Winters1,2, G. August1, G. Realmuto1, 1Psychiatry, University of Minnesota, Minneapolis, MN, 2Treatment Research Institute, Philadelphia, PA

2:00  Prospective examination of the association of stimulant medication history and drug use outcomes in ADHD youth
   G. August, K. Winters, C. Realmuto, Psychiatry, University of Minnesota, Minneapolis, MN

2:15  Adolescent methylphenidate treatment augments later vulnerability to cocaine addiction in rats with an ADHD phenotype
   R. C. Harvey, K. M. Kantak, Psychology, Boston University, Boston, MA

2:30  Contingency management for smoking cessation in adults with and without Attention Deficit Hyperactivity Disorder
   S. Kollins, F. J. Mc Clernon, E. Van Voorhees, J. S. English, M. Hallyburton, A. Holdaway, Duke University Medical Center, Durham, NC

2:45  Sex effects on nicotine withdrawal in smokers with and without ADHD
   E. E. Van Voorhees, S. Kollins, F. J. McClernon, J. E. Rose, Duke University Medical Center, Durham, NC

3:00  Attitudes of college students toward use and misuse of psychiatric medications
   A. M. Stone1, L. J. Merlo2,1, 1Psychiatry, University of Florida, Gainesville, FL, 2Psychiatry, Washington University, St. Louis, MO

Oral Communications 21

DOUBLE DOWN WITH MOM AND BABY:
DRUGS OF ABUSE IN PREGNANCY

Chairs: Loretta Finnegan and Susan Stine

1:30  Using community-based participatory research techniques to screen for substance abuse in low-income pregnant women receiving WIC services
   L. Keyser-Marcus, M. Welch, R. Singleton, D. Svikis, Psychology, Virginia Commonwealth University, Richmond, VA
1:45 Characteristics associated with cocaine use in pregnant opioid-dependent women: Preliminary results from the Maternal Opioid Treatment, Human Experimental Research study
S. Stine¹, A. Arria², K. O'Grady², K. Kaltenbach¹, G. Fischer⁴, P. Martin⁸, S. Heil⁶, M. Coyle⁷, P. Selby⁸, H. Jones², ¹Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI, ²Johns Hopkins U, Baltimore, MD, ³Thomas Jefferson U, Philadelphia, PA, ⁴Medical U Vienna, Vienna, Austria, ⁵Vanderbilt U, Nashville, TN, ⁶U of Vermont, Burlington, VT, ⁷Brown U, Providence, RI, ⁸U of Toronto, Toronto, ON, Canada

2:00 Telling the whole truth and nothing but the truth: Relationship between self-report measures of drug use and urine/hair assay results in post-partum women
C. Smith¹, S. Ondersma², P. Lam², V. Conners², D. Svikis¹, ¹Psychology, VCU, Richmond, VA, ²Psychiatry, Wayne State, Detroit, MI

2:15 Cigarette smoking and its treatment in pregnant, polysubstance-dependent women: Knowledge, attitudes and practice of patients and staff
M. Chisolm, E. C. Pfeil, M. Tuten, E. C. Strain, H. E. Jones, Johns Hopkins University School of Medicine, Baltimore, MD

2:30 Delivery and neonatal outcomes of methadone-maintained pregnant patients with and without a current mood disorder
M. Tuten¹, H. Jones¹, K. O'Grady², H. Fitzsimons¹, S. Heil⁵, M. Chisolm¹, ¹Johns Hopkins University, Baltimore, MD, ²University of Maryland, College Park, College Park, MD, ³University of Vermont, Burlington, VT

2:45 Neonatal isolation alters mother-pup interactions
T. A. Kosten¹, P. Kehoe², ¹Psychiatry, Baylor College of Medicine, Houston, TX, ²University of California School of Nursing, Los Angeles, CA

3:00 Smoking cessation and breastfeeding
T. M. Higgins¹, S. T. Higgins², S. H. Heil², G. J. Badger², ¹Bates College, Lewiston, ME, ²University of Vermont, Burlington, VT

3:15 Abnormal brain metabolite levels in children with prenatal nicotine exposure
L. Chang, C. Cloak, L. Anderson, R. Kitamura, C. Jiang, S. Buchthal, A. Hoo, T. Ernst, Medicine, Division of Neurology, John A. Burns School of Medicine, University of Hawaii at Manoa, Honolulu, HI

Oral Communications 22

METHAMPHETAMINE

1:30 A receptor mechanism for methamphetamine action in dopamine transporter regulation
Z. Xie, G. M. Miller, Neuroscience, New England Primate Research Center of Harvard Medical School, Southborough, MA

1:45 Increased reward thresholds ("dysphoric"-like state) in rats with extended access to methamphetamine self-administration
S. Wee¹, G. Schulteis², G. F. Koob¹, ¹Committee on the Neurobiology of Addictive Disorders, The Scripps Research Institute, La Jolla, CA, ²Anesthesiology, University of California San Diego, La Jolla, CA
2:00 Behavioral inhibition is predicted by self-report measures of drug intoxication and withdrawal in methamphetamine-dependent people  
J. R. Coyle, M. J. Baggott, J. Mendelson, G. P. Galloway, Addiction Pharmacology, California Pacific Medical Center Research Institute, San Francisco, CA

2:15 Effects of amphetamine derivatives on memory performance and tissue content of monoamine and amino acid neurotransmitters in mice  
K. S. Murnane¹, S. A. Perrine², W. E. Fantegrossi¹,³, M. P. Galloway², L. L. Howell¹,⁴, ¹Yerkes National Primate Research Center, Atlanta, GA, ²Wayne State University School of Medicine, Detroit, MI, ³University of Arkansas for Medical Sciences, Little Rock, AR, ⁴Emory University School of Medicine, Atlanta, GA

2:30 Effects of catecholamine reuptake inhibitors and modafinil on methamphetamine self-administration in rats  
J. Jentsch, A. S. James, Psychology, University of California, Los Angeles, CA

2:45 Modafinil improves cognitive performance in methamphetamine abusers: Evidence from human behavioral and fMRI studies  
D. G. Ghahremani¹, G. Tabibnia¹, J. Monterosso¹, R. A. Poldrack¹,², E. D. London¹,³, ¹Psychiatry and Biobehavioral Science, University of California, Los Angeles, CA, ²Psychology, University of California, Los Angeles, CA, ³Molecular and Medical Pharmacology, University of California, Los Angeles, CA

3:00 Functional MRI of methamphetamine users using a Go No-Go Task  
A. Stenger¹, W. Deng¹, H. Nakama², C. Gonzalez³, W. Haning², G. Fein¹, L. Chang¹, ¹Medicine, University of Hawaii John A. Burns School of Medicine, Honolulu, HI, ²Psychiatry, University of Hawaii John A. Burns School of Medicine, Honolulu, HI, ³Psychology, University of Hawaii, Honolulu, HI

3:15 Neuropsychological test performance in current and abstinent methamphetamine users  
H. Nakama¹, C. Gonzales³, V. A. Stenger², L. Chang², ¹Psychiatry, University of Hawaii, Honolulu, HI, ²Medicine, University of Hawaii, Honolulu, HI, ³Psychology, University of Hawaii, Honolulu, HI

SWEEPSTAKES DRAWING  
Rose Ballroom A  
3:35 - 4:05 PM

YOU MUST BE SEATED IN ONE OF THE SESSIONS AT 3:15 PM IN ORDER TO HAVE YOUR BADGE COLLECTED

HAVE A SAFE TRIP HOME

SEE YOU IN SCOTTSDALE, ARIZONA, JUNE, 12-17, 2010

BADGES MUST BE WORN IN ALL SCIENTIFIC SESSIONS
AUTHOR INDEX

Abdallah, A.B. 52
Ablondi, K. 18
Abood, M. 8, 9
Abraham, A. 8
Abrams, L.C. 21
Abramsohn, Y. 36, 63
Accornero, V.H. 31
Aceto, M.D. 21
Achat-Mendes, C. 17
Acosta, M.C. 18
Acri, J.B. 28
Addou, S. 54
Addy, C. 44
Adelaja, O.A. 11
Adelson, M. 36, 51, 63
Adinoff, B. 31, 43
Adler, L. 83
Adler, M.W. 54
Agar, M.H. 23
Ahmedani, B.K. 73
Akgun, E. 21
Akins, C.K. 16
Akitake, Y. 54
Aklin, W.M. 62
al’Absi, M. 55
Albaugh, D.L. 51, 53
Alexandre, J. 72
Alford, D.P. 33, 51
Ali, R. 25
Alicata, D. 56, 71
Allen, A.M. 55
Allen, S.S. 55
Allensworth-Davies, D. 61, 74
Altus, L. 77
Alvanzo, A. 19
Alvarado, G.F. 73
Alvarez, K. 71
Alvarez-González, C. 12
Alyea, R.A. 54
Amador, N.J. 21
Amano, T. 17
Amass, L. 10
Amen, S.L. 43
Ananthan, S. 16
Anderson, K. 59
Anderson, K.G. 58
Anderson, L. 84
Andorn, A.C. 56, 79
Andrews, G. 12
Ang, A. 24
Angioli, T. 36
Anglin, M.D. 10
Anker, J.J. 20, 69
Annaheim, B. 41
Anselmo, E. 13
Anstic, S. 13
Anthony, J.C. 4, 11, 20, 44, 56,
73, 76
Aoo, N. 54
Appugliese, D. 57
Archibald, L. 18
Arfken, C.L. 56
Arnsten, J. 39
Aron, A. 59
Arrant, A.E. 53
Arria, A. 64, 84
Ary, A.W. 50, 54
Asghar, M. 14
Ashcroft, A. 77
Ashraf, A. 16
Asteriadias, S.J. 78
Aston-Jones, G. 27
Ator, N.A. 65
Auclair, C. 22
August, G. 83
Auriacombe, M. 34, 36, 39, 72,
76
Authier, N.A. 22
Avison, M.J. 31
Babalonis, S. 68
Babor, T. 25
Babuscio, T. 80
Back, S.E. 11, 19, 34, 35, 38
Badger, G.J. 50, 55, 58, 84
Badin de Montjoye, B. 75
Baella, S.A. 14
Baggott, H.J. 3, 15, 34, 52, 67,
85
Bailey, J.E. 11, 37, 38
Baker, A. 35
Baker, N.L. 3, 71, 75
Bakken, N.W. 11
Baladi, M. 14
Balasingam Kasinather, V. 41
Balda, M.A. 52
Baldisserotto, G. 72
Baldwin, R. 71
Ball, S. 76
Balster, R. 1, 66
Balter, R.E. 54
Bandstra, E.S. 31
Banich, M. 81
Banich, M.T. 71
Banks, M. 80
Bantchevska, D. 13
Bardo, M. 45
Bardo, M.T. 14, 16, 59, 80
Bar-Hamburger, R. 12
Baron, D.A. 36
Barondess, D.A. 73
Barr, G. 21
Barr, J. 30
Barrett, E.L. 10, 35
Barrick, C. 40
Barry, D. 38, 79
Bart, G. 66, 70
Bartle-Haring, S. 13
Basak, A. 26
Bass, C.E. 66
Batis, J. 56
Batkini, S.L. 39
Batlle, F. 63
Battisti, M.C. 41
Bauermeister, A. 13
Baumann, M.H. 51
Beach, M.C. 38
Beardsley, P.M. 45
Beardsley, P. 28
Beaty, L.A. 44
Becker, J. 24, 25
Beckmann, J. 45
Bedi, G. 45
Beesdo, K. 44
Behonick, G. 4
Behrendt, S. 44
Bell, C. 70
Bell, J. 50
Bellows, A. 24
Ben Abdallah, A. 10, 60
Benamar, K. 54

86
<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benbenishty, R.</td>
<td>64</td>
</tr>
<tr>
<td>Bennett, A.J.</td>
<td>54</td>
</tr>
<tr>
<td>Benowitz, N.</td>
<td>49</td>
</tr>
<tr>
<td>Ben-Shahar, O.M.</td>
<td>50</td>
</tr>
<tr>
<td>Benson, P.</td>
<td>22</td>
</tr>
<tr>
<td>Benzano, D.B.</td>
<td>41, 42, 72</td>
</tr>
<tr>
<td>Bergman, J.</td>
<td>53</td>
</tr>
<tr>
<td>Bergthold, T.L.</td>
<td>34, 35</td>
</tr>
<tr>
<td>Berhane, S.S.</td>
<td>75</td>
</tr>
<tr>
<td>Bernstein, I.</td>
<td>57</td>
</tr>
<tr>
<td>Berry, M.S.</td>
<td>40</td>
</tr>
<tr>
<td>Berstein, I.</td>
<td>58</td>
</tr>
<tr>
<td>Berthel, T.</td>
<td>40</td>
</tr>
<tr>
<td>Best, A.</td>
<td>37</td>
</tr>
<tr>
<td>Best, S.E.</td>
<td>31</td>
</tr>
<tr>
<td>Beveridge, T.J.</td>
<td>53</td>
</tr>
<tr>
<td>Bevins, R.</td>
<td>30</td>
</tr>
<tr>
<td>Bibbey, A.</td>
<td>71</td>
</tr>
<tr>
<td>Bickel, W.K.</td>
<td>13, 46, 55, 59</td>
</tr>
<tr>
<td>Bidlack, J.M.</td>
<td>26</td>
</tr>
<tr>
<td>Bierut, L.</td>
<td>64</td>
</tr>
<tr>
<td>Bigelow, G.E.</td>
<td>35, 62, 74</td>
</tr>
<tr>
<td>Bilder, R.M.</td>
<td>59</td>
</tr>
<tr>
<td>Birk, T.J.</td>
<td>51, 63</td>
</tr>
<tr>
<td>Bisaga, A.</td>
<td>17, 62</td>
</tr>
<tr>
<td>Black, A.C.</td>
<td>18</td>
</tr>
<tr>
<td>Black, R.A.</td>
<td>7, 75</td>
</tr>
<tr>
<td>Blackford, J.U.</td>
<td>26</td>
</tr>
<tr>
<td>Blanchard, J.</td>
<td>36</td>
</tr>
<tr>
<td>Blanco, C.</td>
<td>79</td>
</tr>
<tr>
<td>Blendy, J.</td>
<td>1</td>
</tr>
<tr>
<td>Bliss, C.</td>
<td>39</td>
</tr>
<tr>
<td>Bloom, A.S.</td>
<td>43</td>
</tr>
<tr>
<td>Blough, B.E.</td>
<td>16</td>
</tr>
<tr>
<td>Bluthenthal, R.</td>
<td>4, 41</td>
</tr>
<tr>
<td>Bobashev, G.</td>
<td>47</td>
</tr>
<tr>
<td>Bockman, C.S.</td>
<td>30</td>
</tr>
<tr>
<td>Boeger, R.H.</td>
<td>52</td>
</tr>
<tr>
<td>Boesch, L.</td>
<td>50</td>
</tr>
<tr>
<td>Bogenschutz, M.P.</td>
<td>19</td>
</tr>
<tr>
<td>Bohnret, K.M.</td>
<td>73</td>
</tr>
<tr>
<td>Boileau, I.</td>
<td>45</td>
</tr>
<tr>
<td>Bois, F.</td>
<td>56, 71</td>
</tr>
<tr>
<td>Bokarius, A.V.</td>
<td>59</td>
</tr>
<tr>
<td>Bolin, B.L.</td>
<td>16</td>
</tr>
<tr>
<td>Bolyard, M.</td>
<td>61</td>
</tr>
<tr>
<td>Bonn-Miller, M.O.</td>
<td>64</td>
</tr>
<tr>
<td>Boos, T.L.</td>
<td>23</td>
</tr>
<tr>
<td>Booth, C.</td>
<td>30</td>
</tr>
<tr>
<td>Booth, R.E.</td>
<td>9</td>
</tr>
<tr>
<td>Booth, R.G.</td>
<td>15</td>
</tr>
<tr>
<td>Booze, R.M.</td>
<td>54</td>
</tr>
<tr>
<td>Borah, E.</td>
<td>23</td>
</tr>
<tr>
<td>Borges, G.</td>
<td>28, 72</td>
</tr>
<tr>
<td>Bornovalova, M.A.</td>
<td>20, 24, 61, 81</td>
</tr>
<tr>
<td>Bösch, L.</td>
<td>23</td>
</tr>
<tr>
<td>Bosch, P.</td>
<td>15</td>
</tr>
<tr>
<td>Bosch, K.</td>
<td>45</td>
</tr>
<tr>
<td>Botko, M.</td>
<td>9</td>
</tr>
<tr>
<td>Boujenah, J.L.</td>
<td>78</td>
</tr>
<tr>
<td>Bouju, G.</td>
<td>34</td>
</tr>
<tr>
<td>Bourgois, P.</td>
<td>4, 41</td>
</tr>
<tr>
<td>Bowen, B.C.</td>
<td>31</td>
</tr>
<tr>
<td>Bowen, S.E.</td>
<td>26</td>
</tr>
<tr>
<td>Bradford, J.B.</td>
<td>58</td>
</tr>
<tr>
<td>Bradford, S.E.</td>
<td>60</td>
</tr>
<tr>
<td>Bradstreet, M.P.</td>
<td>57, 58</td>
</tr>
<tr>
<td>Brady, K.T.</td>
<td>2, 3, 11, 32, 34, 35, 38, 57</td>
</tr>
<tr>
<td>Brannness, J.G.</td>
<td>68</td>
</tr>
<tr>
<td>Branch, C.</td>
<td>76, 77, 78</td>
</tr>
<tr>
<td>Brands, B.</td>
<td>11, 19, 36, 75</td>
</tr>
<tr>
<td>Bredt, M.L.</td>
<td>10, 24</td>
</tr>
<tr>
<td>Brelan, A.</td>
<td>8</td>
</tr>
<tr>
<td>Breslau, J.</td>
<td>72</td>
</tr>
<tr>
<td>Breslau, N.</td>
<td>73</td>
</tr>
<tr>
<td>Brigham, G.</td>
<td>22, 83</td>
</tr>
<tr>
<td>Brimijoin, W.S.</td>
<td>67</td>
</tr>
<tr>
<td>Broadus, A.D.</td>
<td>34, 40</td>
</tr>
<tr>
<td>Brody, A.L.</td>
<td>59</td>
</tr>
<tr>
<td>Bronnec, M.</td>
<td>34</td>
</tr>
<tr>
<td>Brooks, A.</td>
<td>9</td>
</tr>
<tr>
<td>Brooks, D.J.</td>
<td>17, 35, 59, 75</td>
</tr>
<tr>
<td>Brooner, R.K.</td>
<td>35</td>
</tr>
<tr>
<td>Brown, B.S.</td>
<td>9, 23, 61, 62, 63</td>
</tr>
<tr>
<td>Brown, L.L.</td>
<td>16</td>
</tr>
<tr>
<td>Brown, L.S.</td>
<td>78</td>
</tr>
<tr>
<td>Browne, F.</td>
<td>58, 60</td>
</tr>
<tr>
<td>Brownstein, J.S.</td>
<td>7, 11</td>
</tr>
<tr>
<td>Brucker, D.</td>
<td>8</td>
</tr>
<tr>
<td>Bruehl, A.</td>
<td>77</td>
</tr>
<tr>
<td>Bruner, N.R.</td>
<td>58</td>
</tr>
<tr>
<td>Brunzell, D. H.</td>
<td>45</td>
</tr>
<tr>
<td>Bryan, B.R.</td>
<td>18</td>
</tr>
<tr>
<td>Buadze, A.</td>
<td>35</td>
</tr>
<tr>
<td>Buchthal, S.</td>
<td>84</td>
</tr>
<tr>
<td>Buckwalter, M.</td>
<td>32</td>
</tr>
<tr>
<td>Budde, H.</td>
<td>13</td>
</tr>
<tr>
<td>Budman, S.H.</td>
<td>7</td>
</tr>
<tr>
<td>Budney, A.J.</td>
<td>28, 46, 60</td>
</tr>
<tr>
<td>Buffalari, D.</td>
<td>80</td>
</tr>
<tr>
<td>Bühringer, G.</td>
<td>24, 56</td>
</tr>
<tr>
<td>Burakov, A.</td>
<td>3</td>
</tr>
<tr>
<td>Burden, M.J.</td>
<td>31</td>
</tr>
<tr>
<td>Burns, M.</td>
<td>70</td>
</tr>
<tr>
<td>Buscemi, R.</td>
<td>3</td>
</tr>
<tr>
<td>Bushara, N.</td>
<td>3</td>
</tr>
<tr>
<td>Busto, B.</td>
<td>45</td>
</tr>
<tr>
<td>Butler, S.F.</td>
<td>7, 11, 74, 75</td>
</tr>
<tr>
<td>Byrne, M.</td>
<td>76</td>
</tr>
<tr>
<td>Cabral, H.</td>
<td>57</td>
</tr>
<tr>
<td>Cacciola, J.</td>
<td>29</td>
</tr>
<tr>
<td>Cacoub, P.</td>
<td>38</td>
</tr>
<tr>
<td>Cadet, J.L.</td>
<td>51</td>
</tr>
<tr>
<td>Caldeira, K.</td>
<td>64</td>
</tr>
<tr>
<td>Calderon, J.M.</td>
<td>12</td>
</tr>
<tr>
<td>Caldwell, D.</td>
<td>78</td>
</tr>
<tr>
<td>Callaghan, R.</td>
<td>36</td>
</tr>
<tr>
<td>Calsyn, D.A.</td>
<td>9, 45</td>
</tr>
<tr>
<td>Calvin, N.</td>
<td>71</td>
</tr>
<tr>
<td>Campbell, R.H.</td>
<td>14</td>
</tr>
<tr>
<td>Campollo, O.</td>
<td>12, 76</td>
</tr>
<tr>
<td>Campos, M.</td>
<td>10</td>
</tr>
<tr>
<td>Campos, P.S.</td>
<td>65</td>
</tr>
<tr>
<td>Campos, S.</td>
<td>78</td>
</tr>
<tr>
<td>Canfield, K.M.</td>
<td>39</td>
</tr>
<tr>
<td>Cao, A.</td>
<td>32</td>
</tr>
<tr>
<td>Carbonaro, T.</td>
<td>69</td>
</tr>
<tr>
<td>Cardenas, G.</td>
<td>70</td>
</tr>
<tr>
<td>Cardús, M.</td>
<td>63</td>
</tr>
<tr>
<td>Careta, H.</td>
<td>33</td>
</tr>
<tr>
<td>Cargile, C.S.</td>
<td>3, 18</td>
</tr>
<tr>
<td>Carise, D.</td>
<td>29</td>
</tr>
<tr>
<td>Carlini, C.</td>
<td>12</td>
</tr>
<tr>
<td>Carlson, R.</td>
<td>42</td>
</tr>
<tr>
<td>Carney, T.</td>
<td>60</td>
</tr>
<tr>
<td>Carosso, G.A.</td>
<td>50</td>
</tr>
<tr>
<td>Carpenter, K.M.</td>
<td>40, 62</td>
</tr>
<tr>
<td>Carpenter, L.</td>
<td>4</td>
</tr>
<tr>
<td>Author</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Carpenter, M.J.</td>
<td>3, 55, 71, 75</td>
</tr>
<tr>
<td>Carr, G.V.</td>
<td>27</td>
</tr>
<tr>
<td>Carr, S.M.</td>
<td>23</td>
</tr>
<tr>
<td>Carroll, F.</td>
<td>2</td>
</tr>
<tr>
<td>Carroll, K.</td>
<td>80</td>
</tr>
<tr>
<td>Carroll, M.E.</td>
<td>20, 25, 69</td>
</tr>
<tr>
<td>Carter, A.E.</td>
<td>81</td>
</tr>
<tr>
<td>Carter, L.P.</td>
<td>68</td>
</tr>
<tr>
<td>Carter, R.E.</td>
<td>3, 19, 57</td>
</tr>
<tr>
<td>Cassidy, J.</td>
<td>31, 49, 50, 65</td>
</tr>
<tr>
<td>Cassidy, T.A.</td>
<td>7</td>
</tr>
<tr>
<td>Cassin, J.</td>
<td>70</td>
</tr>
<tr>
<td>Castel, S.</td>
<td>75</td>
</tr>
<tr>
<td>Castellanos, E.</td>
<td>13</td>
</tr>
<tr>
<td>Catacora, M.M.</td>
<td>20</td>
</tr>
<tr>
<td>Cavanaugh, C.E.</td>
<td>60, 61</td>
</tr>
<tr>
<td>Caven, A.P.</td>
<td>54</td>
</tr>
<tr>
<td>Cawley, S.</td>
<td>62</td>
</tr>
<tr>
<td>Chait, B.T.</td>
<td>54</td>
</tr>
<tr>
<td>Chakraborty, B.</td>
<td>14, 44</td>
</tr>
<tr>
<td>Chandler, S.</td>
<td>23, 38</td>
</tr>
<tr>
<td>Chang, L.</td>
<td>43, 56, 71, 84, 85</td>
</tr>
<tr>
<td>Chaplin, T.</td>
<td>2</td>
</tr>
<tr>
<td>Chapman, C.D.</td>
<td>14</td>
</tr>
<tr>
<td>Chapman, E.</td>
<td>32</td>
</tr>
<tr>
<td>Charboneau, E.J.</td>
<td>13, 26</td>
</tr>
<tr>
<td>Chartier, M.</td>
<td>79</td>
</tr>
<tr>
<td>Chaudhry, A.A.</td>
<td>9</td>
</tr>
<tr>
<td>Chaudhury, R.</td>
<td>58</td>
</tr>
<tr>
<td>Chaves, T.</td>
<td>13</td>
</tr>
<tr>
<td>Chavkin, C.</td>
<td>82</td>
</tr>
<tr>
<td>Chawarski, M.C.</td>
<td>39, 41, 60, 62</td>
</tr>
<tr>
<td>Chen, C.A.</td>
<td>51</td>
</tr>
<tr>
<td>Chen, C.Y.</td>
<td>56</td>
</tr>
<tr>
<td>Chen, N.</td>
<td>44, 46</td>
</tr>
<tr>
<td>Chen, S.</td>
<td>47</td>
</tr>
<tr>
<td>Chen, S.A.</td>
<td>30</td>
</tr>
<tr>
<td>Chen, X.</td>
<td>54</td>
</tr>
<tr>
<td>Cheng, D.M.</td>
<td>51, 61, 74</td>
</tr>
<tr>
<td>Cheng, H.</td>
<td>56</td>
</tr>
<tr>
<td>Cheng, K.</td>
<td>65</td>
</tr>
<tr>
<td>Cherek, D.R.</td>
<td>81</td>
</tr>
<tr>
<td>Cherpetel, C.</td>
<td>72</td>
</tr>
<tr>
<td>Chiang, C.</td>
<td>67</td>
</tr>
<tr>
<td>Chiauzzi, E.</td>
<td>48</td>
</tr>
<tr>
<td>Chilcoat, H.D.</td>
<td>3, 4, 19, 20, 56, 79</td>
</tr>
<tr>
<td>Childress, A.R.</td>
<td>31, 49, 50, 65</td>
</tr>
<tr>
<td>Chim, D.</td>
<td>77</td>
</tr>
<tr>
<td>Chin, I.</td>
<td>56, 71</td>
</tr>
<tr>
<td>Chisolm, M.</td>
<td>84</td>
</tr>
<tr>
<td>Chiuccariello, L.</td>
<td>45</td>
</tr>
<tr>
<td>Choi, J.</td>
<td>25</td>
</tr>
<tr>
<td>Chopra, M.</td>
<td>3</td>
</tr>
<tr>
<td>Choustermann, M.</td>
<td>38</td>
</tr>
<tr>
<td>Christensen, D.R.</td>
<td>59</td>
</tr>
<tr>
<td>Chu, M.</td>
<td>78</td>
</tr>
<tr>
<td>Chu, P.</td>
<td>33</td>
</tr>
<tr>
<td>Cicero, T.</td>
<td>7</td>
</tr>
<tr>
<td>Ciller Valverde, L.</td>
<td>20</td>
</tr>
<tr>
<td>Cios, H.</td>
<td>43</td>
</tr>
<tr>
<td>Clark, L.</td>
<td>42</td>
</tr>
<tr>
<td>Clark, N.</td>
<td>25</td>
</tr>
<tr>
<td>Clarke, J.</td>
<td>9, 10</td>
</tr>
<tr>
<td>Clatts, M.</td>
<td>37</td>
</tr>
<tr>
<td>Clausen, T.</td>
<td>4, 40</td>
</tr>
<tr>
<td>Clayton, T.</td>
<td>65, 68</td>
</tr>
<tr>
<td>Cleland, C.</td>
<td>4</td>
</tr>
<tr>
<td>Cleveland, J.</td>
<td>37</td>
</tr>
<tr>
<td>Clinksinbeard, S.S.</td>
<td>40</td>
</tr>
<tr>
<td>Cloak, C.C.</td>
<td>56, 71, 84</td>
</tr>
<tr>
<td>Co, C.</td>
<td>65</td>
</tr>
<tr>
<td>Coffey, S.F.</td>
<td>35, 60</td>
</tr>
<tr>
<td>Coffin, L.</td>
<td>22, 63</td>
</tr>
<tr>
<td>Cohen, B.</td>
<td>67</td>
</tr>
<tr>
<td>Cohn, J.</td>
<td>38</td>
</tr>
<tr>
<td>Coker, A.R.</td>
<td>17</td>
</tr>
<tr>
<td>Colby, S.M.</td>
<td>55</td>
</tr>
<tr>
<td>Cole, K.T.</td>
<td>53</td>
</tr>
<tr>
<td>Coleman, V.H.</td>
<td>58</td>
</tr>
<tr>
<td>Colescott, P.</td>
<td>24</td>
</tr>
<tr>
<td>Colfax, G.</td>
<td>33</td>
</tr>
<tr>
<td>Collier, W.</td>
<td>43</td>
</tr>
<tr>
<td>Collins, C.</td>
<td>11, 12, 22, 59</td>
</tr>
<tr>
<td>Collins, G.T.</td>
<td>52</td>
</tr>
<tr>
<td>Colucci, R.</td>
<td>21, 37, 79</td>
</tr>
<tr>
<td>Comer, S.D.</td>
<td>37, 66</td>
</tr>
<tr>
<td>Comerford, M.</td>
<td>19</td>
</tr>
<tr>
<td>Compton, P.A.</td>
<td>46</td>
</tr>
<tr>
<td>Compton, W.</td>
<td>78</td>
</tr>
<tr>
<td>Conklin, C.A.</td>
<td>55</td>
</tr>
<tr>
<td>Conn, N.</td>
<td>46</td>
</tr>
<tr>
<td>Conner, B.</td>
<td>10</td>
</tr>
<tr>
<td>Connor, J.P.</td>
<td>36</td>
</tr>
<tr>
<td>Connors, V.M.</td>
<td>74, 84</td>
</tr>
<tr>
<td>Conway, K.P.</td>
<td>78</td>
</tr>
<tr>
<td>Cook, J.M.</td>
<td>65, 68</td>
</tr>
<tr>
<td>Cooney, B.</td>
<td>75</td>
</tr>
<tr>
<td>Coop, A.</td>
<td>16</td>
</tr>
<tr>
<td>Cooper, D.C.</td>
<td>31</td>
</tr>
<tr>
<td>Cooper, Z.D.</td>
<td>37</td>
</tr>
<tr>
<td>Copeland, J.</td>
<td>77</td>
</tr>
<tr>
<td>Cornelius, J.R.</td>
<td>37</td>
</tr>
<tr>
<td>Cornelius, M.</td>
<td>36, 81</td>
</tr>
<tr>
<td>Correa, E.</td>
<td>72</td>
</tr>
<tr>
<td>Corrigall, W.A.</td>
<td>30, 82</td>
</tr>
<tr>
<td>Corsi, K.F.</td>
<td>9</td>
</tr>
<tr>
<td>Cosgrove, K.</td>
<td>71</td>
</tr>
<tr>
<td>Cosio, L.</td>
<td>77</td>
</tr>
<tr>
<td>Cotlar, R.</td>
<td>36</td>
</tr>
<tr>
<td>Cotter, F.</td>
<td>77</td>
</tr>
<tr>
<td>Cottler, L.B.</td>
<td>3, 7, 10, 46, 52, 60, 64, 74</td>
</tr>
<tr>
<td>Cotton, D.</td>
<td>39</td>
</tr>
<tr>
<td>Courty, P.Y.</td>
<td>22</td>
</tr>
<tr>
<td>Cousins, S.J.</td>
<td>8, 24</td>
</tr>
<tr>
<td>Covey, L.</td>
<td>83</td>
</tr>
<tr>
<td>Coviello, D.M.</td>
<td>23</td>
</tr>
<tr>
<td>Cowan, R.L.</td>
<td>13, 26, 31, 32</td>
</tr>
<tr>
<td>Coyle, J.R.</td>
<td>34, 85</td>
</tr>
<tr>
<td>Coyle, M.</td>
<td>58, 84</td>
</tr>
<tr>
<td>Craft, R.M.</td>
<td>20</td>
</tr>
<tr>
<td>Cravatt, B.</td>
<td>9</td>
</tr>
<tr>
<td>Crawford, C.A.</td>
<td>14</td>
</tr>
<tr>
<td>Creelius, R.</td>
<td>10</td>
</tr>
<tr>
<td>Creemers, H.E.</td>
<td>44</td>
</tr>
<tr>
<td>Crevecoeur-MacPhail, D.A.</td>
<td>33, 77</td>
</tr>
<tr>
<td>Crits-Christoph, P.</td>
<td>40</td>
</tr>
<tr>
<td>Croghan, I.</td>
<td>83</td>
</tr>
<tr>
<td>Crooks, P.</td>
<td>45</td>
</tr>
<tr>
<td>Crow, A.</td>
<td>69</td>
</tr>
<tr>
<td>Crowley, T.J.</td>
<td>9, 28, 71, 81</td>
</tr>
<tr>
<td>Cruz, M.A.</td>
<td>12</td>
</tr>
<tr>
<td>Cruz, S.L.</td>
<td>54</td>
</tr>
<tr>
<td>Cruz, V.</td>
<td>73</td>
</tr>
<tr>
<td>Cuhaciyan, C.</td>
<td>69</td>
</tr>
<tr>
<td>Culmer, T.</td>
<td>43</td>
</tr>
<tr>
<td>Cummings, A.M.</td>
<td>19</td>
</tr>
<tr>
<td>Cunningham, J.K.</td>
<td>33</td>
</tr>
<tr>
<td>Cunningham, K.A.</td>
<td>52, 54, 59</td>
</tr>
<tr>
<td>Curley, L.E.</td>
<td>15</td>
</tr>
<tr>
<td>Author</td>
<td>Page(s)</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Cutter, C.</td>
<td>79</td>
</tr>
<tr>
<td>Czerzyk, C.</td>
<td>12</td>
</tr>
<tr>
<td>Czoty, P.W.</td>
<td>31</td>
</tr>
<tr>
<td>Daamen, M.</td>
<td>15</td>
</tr>
<tr>
<td>Dahlbom, M.</td>
<td>59</td>
</tr>
<tr>
<td>Dahlgren, M.</td>
<td>81</td>
</tr>
<tr>
<td>Dallery, J.</td>
<td>55</td>
</tr>
<tr>
<td>Dalwani, M.</td>
<td>71, 81</td>
</tr>
<tr>
<td>Dandy, K.L.</td>
<td>69</td>
</tr>
<tr>
<td>Daniels, S.</td>
<td>21</td>
</tr>
<tr>
<td>Dart, R.C.</td>
<td>11, 37, 38, 66</td>
</tr>
<tr>
<td>Das-Douglas, M.</td>
<td>33</td>
</tr>
<tr>
<td>Dasgupta, N.</td>
<td>4, 56</td>
</tr>
<tr>
<td>Daugherty, D.E.</td>
<td>27</td>
</tr>
<tr>
<td>Daughters, S.B.</td>
<td>20, 24, 34, 61, 71, 81</td>
</tr>
<tr>
<td>Daulouede, J.</td>
<td>36</td>
</tr>
<tr>
<td>Davis, C.M.</td>
<td>27</td>
</tr>
<tr>
<td>Day, D.</td>
<td>15</td>
</tr>
<tr>
<td>De Boni, R.</td>
<td>72</td>
</tr>
<tr>
<td>De Genna, N.M.</td>
<td>36, 81</td>
</tr>
<tr>
<td>De La Garza, II, R.</td>
<td>43</td>
</tr>
<tr>
<td>de la Paz, D.</td>
<td>13</td>
</tr>
<tr>
<td>de Toni, E.C.</td>
<td>14</td>
</tr>
<tr>
<td>de Wit, H.</td>
<td>45</td>
</tr>
<tr>
<td>Deadwyler, S.</td>
<td>31</td>
</tr>
<tr>
<td>Dean, A.C.</td>
<td>33</td>
</tr>
<tr>
<td>DeBon, R.</td>
<td>41</td>
</tr>
<tr>
<td>Debrabant, R.</td>
<td>72</td>
</tr>
<tr>
<td>DeFulio, A.</td>
<td>62, 70</td>
</tr>
<tr>
<td>Degenhardt, L.</td>
<td>25</td>
</tr>
<tr>
<td>del Rio, C.</td>
<td>70</td>
</tr>
<tr>
<td>DeMartini, J.</td>
<td>50</td>
</tr>
<tr>
<td>Denehy, E.</td>
<td>45</td>
</tr>
<tr>
<td>Deng, W.</td>
<td>85</td>
</tr>
<tr>
<td>Denis, C.</td>
<td>34, 36, 72</td>
</tr>
<tr>
<td>Dennis, K.</td>
<td>32</td>
</tr>
<tr>
<td>Dennis, M.J.</td>
<td>18</td>
</tr>
<tr>
<td>Dennis, M.L.</td>
<td>18, 48, 58, 64, 75</td>
</tr>
<tr>
<td>Dersch, C.M.</td>
<td>16</td>
</tr>
<tr>
<td>Des Jarlais, D.C.</td>
<td>22, 63</td>
</tr>
<tr>
<td>DeSantis, S.M.</td>
<td>34</td>
</tr>
<tr>
<td>Desmond, R.C.</td>
<td>19</td>
</tr>
<tr>
<td>DeSouza, C.</td>
<td>70</td>
</tr>
<tr>
<td>Dess, N.K.</td>
<td>14</td>
</tr>
<tr>
<td>Detre, J.</td>
<td>31, 65</td>
</tr>
<tr>
<td>Devous, M.D.</td>
<td>31</td>
</tr>
<tr>
<td>Dewey, W.</td>
<td>49</td>
</tr>
<tr>
<td>Dias, S.</td>
<td>74</td>
</tr>
<tr>
<td>Diaz, S.E.</td>
<td>69</td>
</tr>
<tr>
<td>Dickerson, D.L.</td>
<td>24, 40</td>
</tr>
<tr>
<td>Dickson, M.</td>
<td>78</td>
</tr>
<tr>
<td>Diederichs, C.</td>
<td>21</td>
</tr>
<tr>
<td>Diehl, B.</td>
<td>32</td>
</tr>
<tr>
<td>Diemen, L.V.</td>
<td>42</td>
</tr>
<tr>
<td>Dierst-Davies, R.</td>
<td>10</td>
</tr>
<tr>
<td>Dietrich, M.S.</td>
<td>13, 26, 32</td>
</tr>
<tr>
<td>Dilley, J.</td>
<td>79</td>
</tr>
<tr>
<td>DiPirro, J.M.</td>
<td>54</td>
</tr>
<tr>
<td>DiRocco, D.</td>
<td>3</td>
</tr>
<tr>
<td>Dissabandara, L.O.</td>
<td>74</td>
</tr>
<tr>
<td>Dittmer, K.</td>
<td>56</td>
</tr>
<tr>
<td>Dobscha, S.K.</td>
<td>22</td>
</tr>
<tr>
<td>Dodge, N.C.</td>
<td>31</td>
</tr>
<tr>
<td>Dogra, M.</td>
<td>22</td>
</tr>
<tr>
<td>Doll, W.</td>
<td>32</td>
</tr>
<tr>
<td>Domier, C.</td>
<td>24, 33, 63</td>
</tr>
<tr>
<td>Donlin, W.D.</td>
<td>70</td>
</tr>
<tr>
<td>Dorer, E.</td>
<td>83</td>
</tr>
<tr>
<td>Doty, P.</td>
<td>5</td>
</tr>
<tr>
<td>Douville, K.</td>
<td>43</td>
</tr>
<tr>
<td>Dow-Edwards, D.</td>
<td>57, 65</td>
</tr>
<tr>
<td>Driscoll, J.R.</td>
<td>17</td>
</tr>
<tr>
<td>Du, Y.</td>
<td>71</td>
</tr>
<tr>
<td>Duan, Y.</td>
<td>46</td>
</tr>
<tr>
<td>Dubray, C.</td>
<td>22</td>
</tr>
<tr>
<td>Du, E.A.</td>
<td>66, 70</td>
</tr>
<tr>
<td>Duff, H.</td>
<td>12</td>
</tr>
<tr>
<td>Duke, F.</td>
<td>50</td>
</tr>
<tr>
<td>Dumchev, K.</td>
<td>23, 38</td>
</tr>
<tr>
<td>Duncan, A.</td>
<td>40</td>
</tr>
<tr>
<td>Dunlap, E.</td>
<td>23, 42</td>
</tr>
<tr>
<td>Dunn, K.</td>
<td>11, 28, 50, 51</td>
</tr>
<tr>
<td>Dunne, E.M.</td>
<td>61</td>
</tr>
<tr>
<td>DuPree, J.P.</td>
<td>15</td>
</tr>
<tr>
<td>Durgerian, S.</td>
<td>43</td>
</tr>
<tr>
<td>Durham, T.G.</td>
<td>77</td>
</tr>
<tr>
<td>Duvall, J.L.</td>
<td>10, 73, 74</td>
</tr>
<tr>
<td>Dwoskin, L.</td>
<td>45</td>
</tr>
<tr>
<td>Dwoskin, L.P.</td>
<td>16</td>
</tr>
<tr>
<td>Dykstra, L.A.</td>
<td>1, 21, 27, 43, 54</td>
</tr>
<tr>
<td>Earleywine, M.</td>
<td>37</td>
</tr>
<tr>
<td>Edelen, M.O.</td>
<td>64</td>
</tr>
<tr>
<td>Edmundson, E.</td>
<td>6, 8</td>
</tr>
<tr>
<td>Egan, J.E.</td>
<td>9, 22, 62, 63</td>
</tr>
<tr>
<td>Egan, K.</td>
<td>65</td>
</tr>
<tr>
<td>Egorova, V.</td>
<td>3</td>
</tr>
<tr>
<td>Ehman, R.N.</td>
<td>31, 49, 50</td>
</tr>
<tr>
<td>Eisenstein, T.K.</td>
<td>54</td>
</tr>
<tr>
<td>El-guebay, N.</td>
<td>7</td>
</tr>
<tr>
<td>Elkader, A.K.</td>
<td>36</td>
</tr>
<tr>
<td>Elliott, M.</td>
<td>17</td>
</tr>
<tr>
<td>Elman, I.</td>
<td>34</td>
</tr>
<tr>
<td>Elsken, C.</td>
<td>69</td>
</tr>
<tr>
<td>Engeland, A.</td>
<td>68</td>
</tr>
<tr>
<td>English, J.S.</td>
<td>83</td>
</tr>
<tr>
<td>Enman, N.</td>
<td>16</td>
</tr>
<tr>
<td>Eppolito, A.K.</td>
<td>68</td>
</tr>
<tr>
<td>Epstein, D.H.</td>
<td>19, 45, 55</td>
</tr>
<tr>
<td>Ermer, J.</td>
<td>32</td>
</tr>
<tr>
<td>Ernst, T.</td>
<td>56, 84</td>
</tr>
<tr>
<td>Eschalier, A.</td>
<td>22</td>
</tr>
<tr>
<td>Espinoza, M.T.</td>
<td>13</td>
</tr>
<tr>
<td>Esterl, I.</td>
<td>56</td>
</tr>
<tr>
<td>Estrada, B.</td>
<td>9</td>
</tr>
<tr>
<td>Ettenberg, A.</td>
<td>20, 52</td>
</tr>
<tr>
<td>Evans, C.</td>
<td>1</td>
</tr>
<tr>
<td>Evans, E.</td>
<td>10, 33, 76</td>
</tr>
<tr>
<td>Evans, R.J.</td>
<td>12, 55</td>
</tr>
<tr>
<td>Evans, S.M.</td>
<td>32, 59</td>
</tr>
<tr>
<td>Evenden, J.</td>
<td>60</td>
</tr>
<tr>
<td>Everhart, E.</td>
<td>32, 67</td>
</tr>
<tr>
<td>Everly, J.</td>
<td>62</td>
</tr>
<tr>
<td>Evins, A.E.</td>
<td>55</td>
</tr>
<tr>
<td>Fahey, J.</td>
<td>62, 63</td>
</tr>
<tr>
<td>Falck, R.</td>
<td>42</td>
</tr>
<tr>
<td>Faller, S.</td>
<td>42</td>
</tr>
<tr>
<td>Fan, J.</td>
<td>10</td>
</tr>
<tr>
<td>Fang, W.</td>
<td>32</td>
</tr>
<tr>
<td>Fanous, S.</td>
<td>66</td>
</tr>
<tr>
<td>Fantegrossi, W.E.</td>
<td>69, 85</td>
</tr>
<tr>
<td>Farabbee, D.J.</td>
<td>24</td>
</tr>
<tr>
<td>Farahi, J.</td>
<td>59</td>
</tr>
<tr>
<td>Farias, P.P.</td>
<td>13</td>
</tr>
<tr>
<td>Farley, C.M.</td>
<td>14</td>
</tr>
<tr>
<td>Farnum, S.O.</td>
<td>76</td>
</tr>
<tr>
<td>Farrell-Moore, D.</td>
<td>8</td>
</tr>
</tbody>
</table>
AUTHOR INDEX

Fatseas, M. 34, 36, 72, 76
Fava, M. 55
Feeney, G. 36
Fein, G. 85
Felch, L.J. 74
Feldman, D. 17
Feldman, Z. 3
Felgate, P. 52, 67
Feltenstein, M.W. 30, 34, 80
Feltner, D. 5
Feltz, D.L. 20
Ferguson, D.M. 2
Fernandez, E. 32
Ferreira, E.F. 13
Feske, U. 36
Festinger, D. 29
Fields, H.L. 17
Fields, S. 11, 59
Fiellin, D. 9, 22, 38, 62
Fiestas, F.A. 20, 76
Filippell, T. 51
Fingerhood, M. 62
Finkelstein, R. 62
Finnegan, L. 83
Finnerty, B. 78
Fischer, B.D. 68
Fischer, G. 58, 63, 84
Fishback, J.A. 32
Fiske, L. 3
Fitzgerald, A. 61
Fitzmaurice, G. 56
Fitzsimons, H. 84
Flanigan, T. 9
Fleis, C. 72
Fleury, B. 72
Flisser, A.J. 79
Florence, T.J. 42
Flower, K. 3, 67, 72
Floyd, L.J. 12, 39, 61
Foley, K. 19
Folk, J.E. 21
Follent, A. 12
Foltin, R.W. 57
Fong, C. 4
Fontanges, T. 38
Forcehimes, A.A. 19
Ford, J.H. 8, 23, 76
Fordwood, S. 79
Foresti, K. 14
Forman, R. 40
Forster, M.J. 69
Fosdick, J. 30
Fox, H. 34
Fox, R.G. 52
France, C.P. 14, 27, 65, 68
Frank, D.A. 57
Frank, J.C. 70
Frankforter, T. 80
Franklin, T. 31, 49, 50, 65
Frazier, L. 8
Frederick, B.B. 55, 68
Freeland, D. 21
Freeman-Daniels, E.L. 65
Freese, T.E. 8, 77, 78
Frewen, A. 77
Friedman, S.R. 61
Friedmann, P.D. 10
Frisman, L. 9, 10, 73
Froeliger, B.E. 55
Frohlich, E. 71
Frost, J. 18
Fry, J. 41
Fuchs, C. 61
Fudala, P.J. 74
Fukuda, K. 14
Fuller, C. 38
Funada, M. 54
Funk, R. 13
Furr-Holden, C. 41
Fussell, H.E. 22
Gabriele, A. 65
Gage, H.D. 31
Galea, S. 67
Gallon, S. 77
Gallop, R. 19, 40
Galloway, G.P. 3, 15, 34, 52, 67, 85
Galloway, M.P. 26, 85
Gaminii, H. 74
Gancarz, A.M. 16, 54
Gandhi, D. 51, 61, 62
Garcia Fernandez, G. 70
Garcia, E.E. 31
Garcia, F. 46
Garcia-Rodriguez, O. 20, 70
Garcia-Villarreal, M.D. 33
Garland, S.L. 58
Garner, B. 13
Garnet, B. 62, 79
Garren, R. 13
Garrison, K.J. 15, 34
Gass, J. 42, 63
Gatch, M.B. 69
Geiger, T. 20
Gelernter, J. 74
Gelhorn, H. 9
Geller, E.B. 54
Gentry, A. 58, 60
Gentry, W.B. 18, 67, 70
George, T.P. 45, 56
Gerak, L.R. 68
German, N.A. 66
Gerteis, J. 57
Gervais, A. 78
Ghahremani, D.G. 85
Ghitza, U. 77
Gholson, M. 22
Ghoyland, S. 23
Gilbert, D. 7
Gilbertson, R. 71
Gill, K.E. 54
Gilmour, B.P. 32
Gilpin, M. 22
Gipson, C. 59
Glaser, P.E.A. 55
Glasmacher, C. 15
Glaser-Edwards, S. 24
Glennon, R.A. 66
Glick, S. 14
Gmel, G. 41
Godley, M. 13
Godley, S.H. 13, 48
Goeders, N.E. 33, 69, 75, 80
Gold, M. 36
Gold, M.S. 7, 71
Goldberger, B.A. 7
Goldim, J. 72
Goldman, M. 31, 49, 50, 65
Goldsamt, L. 37
Gomes, C.M. 13
<table>
<thead>
<tr>
<th>Author</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonsai, K.</td>
<td>80</td>
</tr>
<tr>
<td>Gonzales, C.</td>
<td>85</td>
</tr>
<tr>
<td>Gonzales, R.</td>
<td>10, 24, 33</td>
</tr>
<tr>
<td>Gonzalez, C.</td>
<td>19, 85</td>
</tr>
<tr>
<td>Gonzalez, G.</td>
<td>46</td>
</tr>
<tr>
<td>González, P.</td>
<td>13</td>
</tr>
<tr>
<td>Gonzalez-Espinosa, C.</td>
<td>54</td>
</tr>
<tr>
<td>Gooden, L.</td>
<td>70</td>
</tr>
<tr>
<td>Gopalakrishnan, M.</td>
<td>83</td>
</tr>
<tr>
<td>Gordon, M.S.</td>
<td>74</td>
</tr>
<tr>
<td>Gorelick, D.</td>
<td>12, 18</td>
</tr>
<tr>
<td>Gorka, S.M.</td>
<td>24, 34, 61</td>
</tr>
<tr>
<td>Gossop, M.</td>
<td>4, 10, 62</td>
</tr>
<tr>
<td>Gould, T.J.</td>
<td>30</td>
</tr>
<tr>
<td>Goulet, J.</td>
<td>38</td>
</tr>
<tr>
<td>Gourarier, L.</td>
<td>78</td>
</tr>
<tr>
<td>Govan, S.</td>
<td>14</td>
</tr>
<tr>
<td>Govindaraju, V.</td>
<td>31</td>
</tr>
<tr>
<td>Gowin, J.</td>
<td>71</td>
</tr>
<tr>
<td>Grabowski, J.</td>
<td>75</td>
</tr>
<tr>
<td>Grady, S.</td>
<td>82</td>
</tr>
<tr>
<td>Graham, C.</td>
<td>60, 61</td>
</tr>
<tr>
<td>Graham, N.A.</td>
<td>7, 71</td>
</tr>
<tr>
<td>Grasing, K.</td>
<td>43, 70</td>
</tr>
<tr>
<td>Graves, S.M.</td>
<td>15</td>
</tr>
<tr>
<td>Gray, J.</td>
<td>57</td>
</tr>
<tr>
<td>Gray, K.M.</td>
<td>3, 55, 71, 75</td>
</tr>
<tr>
<td>Green, C.</td>
<td>18, 59, 63, 83</td>
</tr>
<tr>
<td>Green, T.C.</td>
<td>7</td>
</tr>
<tr>
<td>Greenfield, S.F.</td>
<td>9, 19</td>
</tr>
<tr>
<td>Greenwald, M.K.</td>
<td>21, 22, 33, 57, 60</td>
</tr>
<tr>
<td>Greenwell, L.</td>
<td>24, 73</td>
</tr>
<tr>
<td>Gregorio, L.</td>
<td>19</td>
</tr>
<tr>
<td>Grekin, E.R.</td>
<td>74</td>
</tr>
<tr>
<td>Griffin, B.</td>
<td>64</td>
</tr>
<tr>
<td>Griffin, M.</td>
<td>56</td>
</tr>
<tr>
<td>Griffiths, R.R.</td>
<td>18, 68</td>
</tr>
<tr>
<td>Groman, S.</td>
<td>81</td>
</tr>
<tr>
<td>Grossman, E.</td>
<td>3</td>
</tr>
<tr>
<td>Grottenthaler, A.</td>
<td>55</td>
</tr>
<tr>
<td>Gruber, S.A.</td>
<td>31, 81</td>
</tr>
<tr>
<td>Gruber, V.</td>
<td>38</td>
</tr>
<tr>
<td>Gryczynski, J.</td>
<td>63, 78</td>
</tr>
<tr>
<td>Gueorguieva, R.</td>
<td>74</td>
</tr>
<tr>
<td>Guerin, G.F.</td>
<td>33, 69</td>
</tr>
<tr>
<td>Guillou, M.</td>
<td>34</td>
</tr>
<tr>
<td>Gunderson, E.W.</td>
<td>18</td>
</tr>
<tr>
<td>Gur, M.</td>
<td>77</td>
</tr>
<tr>
<td>Gust, S.W.</td>
<td>29</td>
</tr>
<tr>
<td>Gustafson, D.H.</td>
<td>8, 23</td>
</tr>
<tr>
<td>Gutierrez-Padilla, A.</td>
<td>76</td>
</tr>
<tr>
<td>Gutkin, B.</td>
<td>47</td>
</tr>
<tr>
<td>Guydish, J.</td>
<td>22, 79</td>
</tr>
<tr>
<td>Guzman, D.</td>
<td>20</td>
</tr>
<tr>
<td>Gwaltney, C.J.</td>
<td>55</td>
</tr>
<tr>
<td>Gyarmathy, V.</td>
<td>60</td>
</tr>
<tr>
<td>Haffey, M.</td>
<td>32</td>
</tr>
<tr>
<td>Hakun, J.</td>
<td>31</td>
</tr>
<tr>
<td>Hall, E.</td>
<td>19</td>
</tr>
<tr>
<td>Haller, D.L.</td>
<td>18, 58</td>
</tr>
<tr>
<td>Hallyburton, M.</td>
<td>83</td>
</tr>
<tr>
<td>Halpern, J.H.</td>
<td>44</td>
</tr>
<tr>
<td>Hamburger, R.B.</td>
<td>64</td>
</tr>
<tr>
<td>Hamilton, A.B.</td>
<td>33, 75</td>
</tr>
<tr>
<td>Hamilton, E.C.</td>
<td>50</td>
</tr>
<tr>
<td>Hammer, Jr. R.P.</td>
<td>66</td>
</tr>
<tr>
<td>Hamon, S.</td>
<td>17</td>
</tr>
<tr>
<td>Hampson, R.</td>
<td>31</td>
</tr>
<tr>
<td>Haney, M.</td>
<td>7, 57</td>
</tr>
<tr>
<td>Haning, W.</td>
<td>24, 44, 85</td>
</tr>
<tr>
<td>Hanlon, C.A.</td>
<td>26, 47</td>
</tr>
<tr>
<td>Hannigan, J.H.</td>
<td>26</td>
</tr>
<tr>
<td>Hansen, S.</td>
<td>34</td>
</tr>
<tr>
<td>Hao, X.</td>
<td>46</td>
</tr>
<tr>
<td>Hara, M.</td>
<td>56, 72</td>
</tr>
<tr>
<td>Harbonnier, J.</td>
<td>39</td>
</tr>
<tr>
<td>Harocopos, A.</td>
<td>37</td>
</tr>
<tr>
<td>Harp, K.</td>
<td>73</td>
</tr>
<tr>
<td>Harper, D.</td>
<td>65</td>
</tr>
<tr>
<td>Harris, G.C.</td>
<td>27</td>
</tr>
<tr>
<td>Harris, L.S.</td>
<td>1, 8, 9, 21</td>
</tr>
<tr>
<td>Harris, T.S.</td>
<td>31</td>
</tr>
<tr>
<td>Harrison, J.A.</td>
<td>62, 74</td>
</tr>
<tr>
<td>Harrison, S.</td>
<td>51</td>
</tr>
<tr>
<td>Harrod, S.B.</td>
<td>30</td>
</tr>
<tr>
<td>Hart, C.L.</td>
<td>15, 55</td>
</tr>
<tr>
<td>Hart, N.</td>
<td>45</td>
</tr>
<tr>
<td>Harte, L.C.</td>
<td>57</td>
</tr>
<tr>
<td>Hartje, J.A.</td>
<td>34, 40, 46, 78</td>
</tr>
<tr>
<td>Hartwell, K.</td>
<td>34</td>
</tr>
<tr>
<td>Harvey, R.C.</td>
<td>83</td>
</tr>
<tr>
<td>Hasan, K.M.</td>
<td>26</td>
</tr>
<tr>
<td>Hatanaka, H.</td>
<td>77</td>
</tr>
<tr>
<td>Hatsukami, D.K.</td>
<td>11, 49, 55</td>
</tr>
<tr>
<td>Hatton, K.W.</td>
<td>8</td>
</tr>
<tr>
<td>Haug, N.</td>
<td>57</td>
</tr>
<tr>
<td>Havens, J.R.</td>
<td>9, 10, 73</td>
</tr>
<tr>
<td>Hawken, A.</td>
<td>10</td>
</tr>
<tr>
<td>Hayden, V.</td>
<td>13</td>
</tr>
<tr>
<td>Haynes, L.</td>
<td>19, 78</td>
</tr>
<tr>
<td>Hays, J.W.</td>
<td>78</td>
</tr>
<tr>
<td>Hays, L.R.</td>
<td>32, 57</td>
</tr>
<tr>
<td>Heapy, A.</td>
<td>38</td>
</tr>
<tr>
<td>Hedden, S.L.</td>
<td>39, 60, 61, 72</td>
</tr>
<tr>
<td>Heeney-Buggey, C.</td>
<td>60</td>
</tr>
<tr>
<td>Heeren, T.</td>
<td>39, 57</td>
</tr>
<tr>
<td>Hegstad, S.</td>
<td>62</td>
</tr>
<tr>
<td>Heil, S.H.</td>
<td>11, 57, 58, 84</td>
</tr>
<tr>
<td>Heilig, M.A.</td>
<td>30</td>
</tr>
<tr>
<td>Heinisch, S.</td>
<td>26</td>
</tr>
<tr>
<td>Heintzelman, K.</td>
<td>80</td>
</tr>
<tr>
<td>Heinznerling, K.G.</td>
<td>33, 42</td>
</tr>
<tr>
<td>Heishman, S.J.</td>
<td>45, 54, 55</td>
</tr>
<tr>
<td>Hemberg, J.</td>
<td>24</td>
</tr>
<tr>
<td>Hemby, S.E.</td>
<td>43, 65</td>
</tr>
<tr>
<td>Henderson, S.</td>
<td>50</td>
</tr>
<tr>
<td>Hendrick, E. S.</td>
<td>45</td>
</tr>
<tr>
<td>Henker, J.</td>
<td>24, 56</td>
</tr>
<tr>
<td>Henningfield, J.</td>
<td>5, 22, 49, 66</td>
</tr>
<tr>
<td>Henry, P.K.</td>
<td>50</td>
</tr>
<tr>
<td>Henslee, A.M.</td>
<td>35</td>
</tr>
<tr>
<td>Herbert, M.S.</td>
<td>14</td>
</tr>
<tr>
<td>Herin, D.V.</td>
<td>18, 75</td>
</tr>
<tr>
<td>Herrmann, E.</td>
<td>57</td>
</tr>
<tr>
<td>Herrold, A.A.</td>
<td>27</td>
</tr>
<tr>
<td>Hersh, D.</td>
<td>22</td>
</tr>
<tr>
<td>Hess, M.</td>
<td>50</td>
</tr>
<tr>
<td>Hewitt, J.</td>
<td>9</td>
</tr>
<tr>
<td>Hidalgo, C.G.</td>
<td>13</td>
</tr>
<tr>
<td>Higgins, S.T.</td>
<td>1, 11, 51, 57, 58, 84</td>
</tr>
<tr>
<td>Higgins, T.M.</td>
<td>84</td>
</tr>
<tr>
<td>Hilde, A.</td>
<td>60</td>
</tr>
<tr>
<td>Hile, M.</td>
<td>8</td>
</tr>
<tr>
<td>Hill, E.</td>
<td>12</td>
</tr>
<tr>
<td>Hill, K.</td>
<td>80</td>
</tr>
<tr>
<td>Hillard, C.J.</td>
<td>43</td>
</tr>
</tbody>
</table>
AUTHOR INDEX

Hyde, M. 21
Hyman, S.M. 34
Ialongo, N.S. 18, 64
Ick, R. 76
Iguchi, M. 4, 41, 49
Iijima, M. 57
Ikeda, K. 41, 52
Ikegami, D. 14
Imhoff, S. 11, 59
Incariardi, J.A. 10, 11
Indlekofer, F. 15
Irvine, R.J. 15, 51, 52, 67
Islam, L. 19
Itasaka, M. 52
Itzhak, Y. 52
Izenwasser, S. 25, 30, 45, 51
Jacklin, D. 80
Jackson Bloom, J. 37
Jackson, A. 57
Jackson, C. 17, 39
Jacob III, P. 32
Jacobson, J.L. 31
Jacobson, S.W. 31
Jaehne, E.J. 15
Jaffe, J.H. 51, 63
Jaffee, W.B. 56
Jain, R. 37
Jairl, C.A. 17
James, A.S. 17, 85
Jancaitis, B.C. 58
Janes, A.C. 55
Janisse, J. 36
Jaramillo, A. 13
Jenab, S. 20, 21, 69
Jenkins, J. 62, 63, 77
Jenkins, L.M. 34
Jens, W. 31, 49, 50, 65
Jentsch, J.D. 17, 81, 85
Jia, Z. 2
Jiang, C. 84
Johanson, C.E. 57, 66
John-Hull, C. 78
Johnson, B.D. 42, 73
Johnson, E. 41
Johnson, F. 21
Johnson, G. 51
Johnson, J. 78
Johnson, K. 64, 77
Johnson, M.W. 18, 68
Johnson, R.E. 74
Johnston, A. 41
Jones, B. 3, 35
Jones, B.A. 13
Jones, C. 77
Jones, H.E. 58, 84
Jones, J.D. 66
Jones, K. 38
Jones, R.T. 32
Jordan, A. 22, 63
Jungman, J. 78
Justice, A. 38
Jutkiewicz, E.M. 30
Kadunc, J. 23
Kakibuchi, Y. 41
Kalayasiri, R. 74
Kalechstein, A.D. 33
Kalivas, P.W. 50
Kaltenbach, K. 5, 57, 58, 84
Kamien, J.B. 10
Kampman, K.M. 31, 65, 72, 82
Kangarlu, A. 46
Kantak, K.M. 50, 69, 83
Kaplan, J.R. 31
Kaprio, J. 44
Karageorgiou, J. 26
Karellitz, J.L. 55
Kasinather, V.B. 60
Katz, E.C. 9, 61, 62
Kaufman, M.J. 1, 55
Kaur, A. 72
Kaushal, S. 16
Kaye, K. 76
Keane, M. 52
Kehoe, P. 46, 84
Kellam, S. 18
Keller, C. 69
Kelley, J. 51
Kelley, M. 5
Kelly, S.M. 23, 51, 63
Kelly, T.H. 57, 68, 71
Kennedy, M.G. 58
Kerns, R. 38
<table>
<thead>
<tr>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerstetter, K.A.</td>
<td>20, 69</td>
</tr>
<tr>
<td>Kertesz, S.</td>
<td>3, 35</td>
</tr>
<tr>
<td>Kerwin, M.</td>
<td>5</td>
</tr>
<tr>
<td>Kessler, F.H.</td>
<td>13, 42</td>
</tr>
<tr>
<td>Keyser-Marcus, L.</td>
<td>19, 83</td>
</tr>
<tr>
<td>Khan, M.</td>
<td>61</td>
</tr>
<tr>
<td>Khodneva, Y.</td>
<td>3, 35</td>
</tr>
<tr>
<td>Kichko, I.</td>
<td>51</td>
</tr>
<tr>
<td>Kielstein, A.</td>
<td>52</td>
</tr>
<tr>
<td>Kielstein, J.T.</td>
<td>52</td>
</tr>
<tr>
<td>Killeen, T.K.</td>
<td>3</td>
</tr>
<tr>
<td>Kim, H.J.</td>
<td>31</td>
</tr>
<tr>
<td>Kim, I.</td>
<td>51</td>
</tr>
<tr>
<td>Kim, J.S.</td>
<td>66</td>
</tr>
<tr>
<td>Kim, K.</td>
<td>14</td>
</tr>
<tr>
<td>Kim, N.</td>
<td>31</td>
</tr>
<tr>
<td>Kim, T.W.</td>
<td>61</td>
</tr>
<tr>
<td>Kimmel, H.L.</td>
<td>16</td>
</tr>
<tr>
<td>King, A.C.</td>
<td>45</td>
</tr>
<tr>
<td>King, G.R.</td>
<td>71</td>
</tr>
<tr>
<td>King, S.D.</td>
<td>9, 61, 62</td>
</tr>
<tr>
<td>King, V.L.</td>
<td>35</td>
</tr>
<tr>
<td>Kinlock, T.W.</td>
<td>74</td>
</tr>
<tr>
<td>Kippin, T.E.</td>
<td>20, 69</td>
</tr>
<tr>
<td>Kirby, K.C.</td>
<td>29</td>
</tr>
<tr>
<td>Kirby, L.G.</td>
<td>26, 65</td>
</tr>
<tr>
<td>Kirisci, L.</td>
<td>57</td>
</tr>
<tr>
<td>Kirk, I.J.</td>
<td>15</td>
</tr>
<tr>
<td>Kirsner, R.S.</td>
<td>51, 63</td>
</tr>
<tr>
<td>Kirtland, M.</td>
<td>37</td>
</tr>
<tr>
<td>Kitamura, R.</td>
<td>84</td>
</tr>
<tr>
<td>Kitchen, C.M.</td>
<td>33</td>
</tr>
<tr>
<td>Kivell, B.M.</td>
<td>15</td>
</tr>
<tr>
<td>Kjome, K.L.</td>
<td>59</td>
</tr>
<tr>
<td>Kleber, H.D.</td>
<td>77</td>
</tr>
<tr>
<td>Klein, C.</td>
<td>13</td>
</tr>
<tr>
<td>Klein, H.</td>
<td>61</td>
</tr>
<tr>
<td>Kleykamp, B.A.</td>
<td>62</td>
</tr>
<tr>
<td>Kline, R.</td>
<td>2</td>
</tr>
<tr>
<td>Klingman, C.</td>
<td>71</td>
</tr>
<tr>
<td>Klintworth, E.M.</td>
<td>3, 55, 71, 75</td>
</tr>
<tr>
<td>Kloczynski, T.</td>
<td>56</td>
</tr>
<tr>
<td>Klorman, R.</td>
<td>31</td>
</tr>
<tr>
<td>Klug, S.</td>
<td>63</td>
</tr>
<tr>
<td>Klugmann, M.</td>
<td>54</td>
</tr>
<tr>
<td>Knowlton, A.R.</td>
<td>39</td>
</tr>
<tr>
<td>Knudsen, H.K.</td>
<td>10, 22, 73</td>
</tr>
<tr>
<td>Ko, J.</td>
<td>19, 20</td>
</tr>
<tr>
<td>Ko, M.C.</td>
<td>69</td>
</tr>
<tr>
<td>Koak, W.</td>
<td>14</td>
</tr>
<tr>
<td>Kobeissy, F.</td>
<td>71</td>
</tr>
<tr>
<td>Kober, H.</td>
<td>55</td>
</tr>
<tr>
<td>Koch, J.R.</td>
<td>8</td>
</tr>
<tr>
<td>Kochanska, K.</td>
<td>24</td>
</tr>
<tr>
<td>Koek, W.</td>
<td>27, 65</td>
</tr>
<tr>
<td>Kohon, J.</td>
<td>22</td>
</tr>
<tr>
<td>Kohut, S.J.</td>
<td>53, 65</td>
</tr>
<tr>
<td>Kollins, S.</td>
<td>83</td>
</tr>
<tr>
<td>Koob, G.F.</td>
<td>84</td>
</tr>
<tr>
<td>Kopetz, C.E.</td>
<td>20, 61</td>
</tr>
<tr>
<td>Korhonen, T.</td>
<td>44</td>
</tr>
<tr>
<td>Korthuis, P.T.</td>
<td>38</td>
</tr>
<tr>
<td>Kostakis, C.</td>
<td>67</td>
</tr>
<tr>
<td>Kosten, T.A.</td>
<td>84</td>
</tr>
<tr>
<td>Kosten, T.R.</td>
<td>46, 67</td>
</tr>
<tr>
<td>Kotz, C.M.</td>
<td>30</td>
</tr>
<tr>
<td>Kowalczyk, WJ.</td>
<td>37, 66</td>
</tr>
<tr>
<td>Kowalewski, R.R.</td>
<td>23</td>
</tr>
<tr>
<td>Kozink, R.V.</td>
<td>55</td>
</tr>
<tr>
<td>Kozlov, A.P.</td>
<td>60</td>
</tr>
<tr>
<td>Kraeff, C.</td>
<td>76</td>
</tr>
<tr>
<td>Kral, A.</td>
<td>4, 41</td>
</tr>
<tr>
<td>Kramer, L.A.</td>
<td>26, 81</td>
</tr>
<tr>
<td>Kranzler, H.</td>
<td>74</td>
</tr>
<tr>
<td>Krauss, R.M.</td>
<td>15</td>
</tr>
<tr>
<td>Kreek, M.J.</td>
<td>1, 16, 17, 25, 34, 39, 53, 54, 66, 70, 80</td>
</tr>
<tr>
<td>Kreps, G.</td>
<td>48</td>
</tr>
<tr>
<td>Kristensen, Ø.</td>
<td>40, 62</td>
</tr>
<tr>
<td>Kritz, S.A.</td>
<td>78</td>
</tr>
<tr>
<td>Kross, E.</td>
<td>55</td>
</tr>
<tr>
<td>Kruglanski, A.W.</td>
<td>61</td>
</tr>
<tr>
<td>Krupitsky, E.</td>
<td>3, 60</td>
</tr>
<tr>
<td>Krystal, J.</td>
<td>71</td>
</tr>
<tr>
<td>Kubiak, S.P.</td>
<td>73</td>
</tr>
<tr>
<td>Kufahl, P.R.</td>
<td>80</td>
</tr>
<tr>
<td>Kuhar, M.</td>
<td>47</td>
</tr>
<tr>
<td>Kuhn, C.M.</td>
<td>25, 53</td>
</tr>
<tr>
<td>Kulaga, A.</td>
<td>40</td>
</tr>
<tr>
<td>Kunøe, N.</td>
<td>10, 62</td>
</tr>
<tr>
<td>Kuper, L.E.</td>
<td>19</td>
</tr>
<tr>
<td>Kuramoto, S.J.</td>
<td>19, 20, 38</td>
</tr>
<tr>
<td>Kurtz, J.</td>
<td>62</td>
</tr>
<tr>
<td>Kurtz, S.P.</td>
<td>11</td>
</tr>
<tr>
<td>Kuzumaki, N.</td>
<td>14, 17</td>
</tr>
<tr>
<td>Kydd, R.R.</td>
<td>14, 15</td>
</tr>
<tr>
<td>Lacy, R.T.</td>
<td>30</td>
</tr>
<tr>
<td>Ladenheim, B.</td>
<td>51</td>
</tr>
<tr>
<td>Lake, B.</td>
<td>15</td>
</tr>
<tr>
<td>Lam, P.K.</td>
<td>74, 84</td>
</tr>
<tr>
<td>Landes, R.D.</td>
<td>13, 59</td>
</tr>
<tr>
<td>Lane, S.D.</td>
<td>26, 59, 71, 81</td>
</tr>
<tr>
<td>Lang, J.</td>
<td>38</td>
</tr>
<tr>
<td>Lange, K.W.</td>
<td>15</td>
</tr>
<tr>
<td>Langleben, D.D.</td>
<td>50</td>
</tr>
<tr>
<td>Lankenau, S.</td>
<td>37</td>
</tr>
<tr>
<td>Lapidus, J.</td>
<td>60</td>
</tr>
<tr>
<td>Larios, S.E.</td>
<td>38, 79</td>
</tr>
<tr>
<td>Larkins, S.</td>
<td>8, 78</td>
</tr>
<tr>
<td>Larowe, S.D.</td>
<td>59</td>
</tr>
<tr>
<td>Lasagna, A.</td>
<td>13</td>
</tr>
<tr>
<td>Latimer, W.W.</td>
<td>12, 39, 60, 61, 72</td>
</tr>
<tr>
<td>Latkin, C.A.</td>
<td>38, 60</td>
</tr>
<tr>
<td>Laude, A.B.</td>
<td>18, 40, 60</td>
</tr>
<tr>
<td>Laurenzana, E.M.</td>
<td>70</td>
</tr>
<tr>
<td>Lavie, E.</td>
<td>36, 39, 72</td>
</tr>
<tr>
<td>Lawental Schori, M.</td>
<td>77</td>
</tr>
<tr>
<td>Lawental, E.</td>
<td>77</td>
</tr>
<tr>
<td>Lawhorn, C.</td>
<td>16</td>
</tr>
<tr>
<td>Lawson, A.</td>
<td>61</td>
</tr>
<tr>
<td>Lazar, J.</td>
<td>62</td>
</tr>
<tr>
<td>Lazar-Wesley, E.</td>
<td>47</td>
</tr>
<tr>
<td>Le Foll, B.</td>
<td>45</td>
</tr>
<tr>
<td>Lechner, W.V.</td>
<td>59</td>
</tr>
<tr>
<td>Ledgerwood, D.M.</td>
<td>56</td>
</tr>
<tr>
<td>Ledon, J.</td>
<td>30, 51</td>
</tr>
<tr>
<td>Lee, B.</td>
<td>59, 81</td>
</tr>
<tr>
<td>Lee, D.C.</td>
<td>71</td>
</tr>
<tr>
<td>Lee, G.P.</td>
<td>37</td>
</tr>
<tr>
<td>Lee, H.</td>
<td>14, 35</td>
</tr>
<tr>
<td>Lee, J.D.</td>
<td>3</td>
</tr>
<tr>
<td>Lehman, W.K.</td>
<td>9</td>
</tr>
<tr>
<td>Leiderman, D.</td>
<td>5</td>
</tr>
<tr>
<td>Leimberger, J.</td>
<td>83</td>
</tr>
<tr>
<td>Leinbach, A.S.</td>
<td>3, 71, 75</td>
</tr>
<tr>
<td>Leisinger, R.</td>
<td>50</td>
</tr>
<tr>
<td>Lejuez, C.W.</td>
<td>20, 61, 71, 81</td>
</tr>
<tr>
<td>Lenoir, M.</td>
<td>30</td>
</tr>
<tr>
<td>Leonard, K.E.</td>
<td>37, 60</td>
</tr>
</tbody>
</table>

93
AUTHOR INDEX

Leone, M.C. 34
Leraas, K. 11, 59
Leri, F. 80
Lerman, C. 79
LeSage, M.G. 30, 49, 53
Lessard, K. 78
Lester, B. 13
Letcher, A. 13
Leukefeld, C.G. 9, 10, 41, 73, 74, 78
Leung, K.S. 3
Levant, B. 52
Levin, F. 46
Levin, F.R. 17, 18, 32, 35, 40, 59, 62, 75
Levit, S. 63
Levran, O. 16, 17
Leyro, T.M. 64
Li, J. 27
Li, L. 32, 33, 76
Li, N. 60
Li, S.J. 43, 53
Li, X. 50
Li, Y. 31, 49, 50, 65
Licata, S.C. 68
Lieb, R. 15, 44
Liebrenz, M. 35
Liebschutz, J. 57, 74
Liguori, A. 26
Lile, J.A. 57, 68
Lin, H. 9, 73
Linares Scott, T. 58
Lindsay, J.A. 18
Lindsey, K. 34
Lindsey, K.P. 46
Lindstrom, J. 82
Ling, W. 46
Ling, W. 24, 33, 62, 63, 76, 77
Lintzeris, N. 50
Lipsey, M. 48
Little, S. 22
Liu, D. 83
Liu, P. 39
Liu, S. 59
Liu, X. 80
Lo, S.J. 22
Lobmaier, P.P. 10, 62
Lodge, P. 12
Lofwall, M.R. 8, 32, 46, 70
Loipl, R. 63
Lokhnnygina, Y. 9
Lominac, K.D. 15, 50, 54
London, E.D. 33, 59, 81, 85
Long, E. 49
Longmire-Avital, B. 72
Looby, A. 37
Lookatch, S.J. 61
Lopez, J.C. 52, 67
Lopez-Quintero, C. 12
Lord, S. 75
Lorin, L. 75
Lotfi, S. 23
Louie, B. 78
Lowen, S.B. 46, 68, 81
Loxton, N.J. 74
Lucas, G. 9
Luce, J. 13
Lui, S. 79
Lukas, S.E. 31, 46, 68, 71, 81
Lum, P. 22
Lundahl, L.H. 33, 57, 58
Lunden, J.W. 65
Luo, L. 39
Lutz, A.M. 55
Lynch, K. 72
Lynch, W. 24
Lyoo, I. 31
Lyvers, M. 12, 36
Ma, L. 26, 59
Maan, R. 68
Machu, T. 69
Maciel, L.A. 75
MacLean, R. 46
MacLean, R.R. 68, 71, 81
Mactherson, L. 71
Mactutus, C.F. 30, 54
Madden, L. 8, 76
Madeja, C. 36
Madero-Salcedo, I.K. 54
Madray, C. 78
Maes, A. 44
Magidson, J. 61
Magura, S. 4, 36, 41
Mahapatra, N. 73
Mahony, A.L. 75
Mainampally, P.N. 43, 44
Maisonneuve, I. 14
Majumder, I. 15, 51
Makriyannis, A. 9
Malak-Lopez, D. 77
Malcolm, C. 75
Malcolm, R.J. 50, 59
Maldonado, R. 1
Malison, R.T. 70, 74
Mallya, G. 46
Mammen, K. 50
Mancha, B.E. 39, 61, 72
Mancino, M.J. 3, 18
Mandelkern, M.A. 59
Mandler, R. 45
Mangrum, L. 19
Mann, R.E. 11
Manneh, C. 24, 61
Manniche, P. 14
Manning, D. 21
Mannino, C. 79
Mantsch, J.R. 33, 53, 82
Manubay, J.M. 37, 62, 77
Manvich, D.F. 16, 53
Marcellin, P. 38
Margolis, E.B. 17
Mariani, J.J. 17, 35, 62, 75
Marinelli-Casey, P. 24, 33, 40
Marrone, G. 45
Marrone, G.F. 15, 55
Marsh, L.A. 50, 71
Marsh, R. 46
Martin, B. 57
Martin, C.A. 55, 68
Martin, D.M. 7
Martin, P. 32, 58, 84
Martin, P.R. 13
Martinez, D. 46
Martins, S.S. 4, 19, 20, 37
Marusich, J.A. 80
Masalov, D. 3
Mashhoon, Y. 49, 50
AUTHOR INDEX

Masho, S.W. 58
Masson, C.L. 22, 63, 79
Mastroianni, F.C. 22
Mateu-Gelabert, P. 61
Mathew, T. 21
Mathur, D. 70
Matos, T.D. 12
Matsumoto, R.R. 16, 17, 32
Matsushima, Y. 17
Matthews, P. 18
Mattila-Evenden, M.E. 60
Maudsley, A. 31
Maurice-Tison, S. 72
Maxwell, J.C. 22, 33
May, J. 8, 58
Mayes, L. 2, 71
Mazlan, M. 41, 60
McCaffrey, D.F. 64
McCance-Katz, E.F. 32
McCann, U. 46
McCarty, D. 6, 8, 22, 23, 38, 63
McCleary, P.M. 75
McClenon, F.J. 55, 83
McClung, J.C. 16
McClure, B. 40
McConnell, J. 23
McCoy, C.B. 19
McCullough, C.A. 55
McCurdy, C.R. 2, 16, 17, 32
McDonald, L. 56
McCollins, T. 77
McGraw, L. 77
McIntosh, J. M. 45
McIntosh, S. 65
McKendrick, K. 10, 38
McKinney, F. 77
McKnight, C. 22, 63
McLaughlin, G. 6, 47
McLaughlin, J.P. 26
McLellan, A. 29, 49
McMahon, L. 7
McMahen, T. 5
Menair, N. 15
McNiel, D. 79
McQueeney, T. 57, 71
McRae-Clark, A.L. 3, 32, 34, 57
McWilliams, S. 81
Meade, C.S. 9, 79, 81
Medina, K.L. 57, 71
Medina, M. 16
Medina-Mora, M.E. 72, 76
Meier, D. 14
Melano, S. 59
Melin, P. 38
Mello, N. 53
Melnick, G. 40
Meltzer, E.C. 74
Mendelson, J. 3, 15, 32, 34, 52, 67, 72, 85
Mende-Siedlecki, P. 55
Mendez, I.A. 45
Mennemeyer, S. 70
Mennis, J. 36
Merle, B. 72
Merlo, L.J. 71, 83
Merlo-Pich, E. 55
Merz, S. 35
Meshberg-Cohen, S. 35
Messina, N. 19
Metsch, L. 45, 70
Metz, V. 63
Meyer, E. 4
Mezzich, A. 57
Michael, Y. 60
Mickiewicz, A.L. 27
 Mickus, M.A. 73
 Miczek, K.A. 82
Middlesteadt-Ellerson, R. 58, 60
Middleton, L. 70
Mikulich-Gilbertson, S.K. 12, 13, 71, 81
Milam, A. 41
Milby, J.B. 70
Miller, G.M. 84
Miller, J. 69
Miller, J.H. 15
Miller, J.S. 16
Miller, L.L. 21, 27, 43, 54
Miller, N.S. 11
Mills, K.L. 10, 35, 41, 79
Millson, M. 13
Milovan, D. 74
Mintzer, M.Z. 35, 62, 68
Miotto, K. 24, 77
Mischel, W. 55
Mitchell, J.M. 17
Mitchell, M.R. 45
Mitchell, S.G. 23
Mitola, A. 19
Mitsis, E. 56
Mittelstet, B. 30
Mitty, J. 9, 22
Miyatake, M. 14
Moeller, F.G. 26, 59, 71, 81
Molfenter, T. 8, 76, 77
Montenegro, D. 77
Monterosso, J.R. 59, 85
Montoya, A. 11
Montoya, I. 80
Moody, D.E. 32
Moolchan, E. 12, 22
Mooney, J. 10, 73
Mooney, L. 24, 77
Mooney, M.E. 11, 20
Moore, B.A. 62, 79
Moore, R.D. 38
Moore, S.K. 50, 71
Moran, L. 54
Moran-Santa Maria, M. 34
Morasco, B.J. 22
Morefield, K.M. 52
Moreno, R.C. 63
Morgan, D. 15, 75
Morgan, P. 70
Morganstern, A. 22, 63
Mori, T. 14
Morin, N.P. 50
Morisano, D. 45
Moroz, L. 23, 38
Morral, A.R. 64
Morris, T. 8
Morrow, C.E. 31
Moukaddam, N.J. 75
Moura, H. 42
Moura, Y.G. 12, 13
Mouttapa, M. 77
Moutray, M. 77
Mueller, A. T. 55
Mueller, M. 41
Munro, T. 67
AUTHOR INDEX

Murnane, K.S. 50, 85
Murphy, D. 64
Murray, J. 30
Murray, K.A. 62
Murphy, D. 64
Murray, J. 30
Murray, K.A. 62
Murphy, P. 34
Mutirangura, A. 74
Myers, C.S. 54
Myers-Franchi, B.J. 79
Myrick, H. 50
Mudrak, M.A. 28, 31, 53, 54
Nagarajaiah, A. 34
Nakama, H. 85
Nandi, A. 61
Nandi, V. 42, 67
Napier, T.C. 15, 27
Nappo, S. 13
Narasimhan, D. 69
Narayana, P.A. 26, 81
Narayanan, G. 46
Narita, M. 14, 17
Nash, W. 22
Nation, J.R. 45
Nattala, P. 34
Navarro, H.A. 32
Nazarian, A. 20
Neely, M. 76
Negron-Ayala, J.L. 12
Negus, S.S. 7, 21, 53, 80
Neisewander, J.L. 50, 69, 80
Nelson, E. 19
Netherland, J. 62
Neugebauer, N.M. 16
Neumark, Y. 12
Newlin, D. 47
Newman, J. 53
Newton, N.C. 12
Newton, T.F. 70
Newville, H. 18
Nguyen, V. 57
Nic Dhonnchadha, B.A. 52, 69
Nich, C. 80
Nielsen, D.A. 17, 46
Nikulina, E.M. 66
Nilson, D. 35
Noack, R. 24, 56
Norland, J.E. 78

Norman, A.B. 75
Norman, M.K. 75
Noto, A.R. 12, 13, 22, 41, 75
Novak, S. 41
Nunes, D. 39
Nunes, E.V. 26, 35, 40, 62
Nuño, M. 10
Nuzzo, P.A. 4, 8, 32, 55, 70
Nygard, S. 69
O’Brien, C.P. 9, 28, 31, 49, 50, 65
O’Connell, D.J. 11
O’Grady, K.E. 9, 23, 51, 58, 61, 62, 63, 64, 74, 84
O’Leary, C.C. 10, 60, 74
O’Leary-Moore, S.K. 26
O’Malley, S.S. 56, 71
Oberleitner, L. 58
Ochsner, K. 55
Ogai, Y. 41
Oliver, A.J. 11
Oliveto, A. 3, 18, 82
Oltmanns, T. 46
Ompad, D.C. 42, 63, 67
Ondersma, S.J. 74, 84
Opaleye, E.S. 12, 13
Opris, I. 31
Ormel, J. 44
Orozco, R. 72
Osborne, D. 76, 77
Oser, C.B. 9, 10, 73, 74
Ott, J. 17
Ouzan, D. 38
Owens, S.M. 70

Pacchioni, A.M. 65
Pace-Schott, E. 70
Packard, M. 46
Padula, C.B. 57, 71
Page, R. 32
Painter, M. 69, 80
Palatkin, V. 3
Palma, J. 26, 54
Palmer, C. 46
Palmer, H. 10
Pandya, A. 66

Papke, R. 82
Paquette, C. 12
Pardo, J.S. 15
Park, S. 13
Parrino, M. 4
Parry, C.D. 60, 79
Parsons, L. 65
Partilla, J.S. 16
Passetti, L. 13
Patterson, A. 22
Payne, R. 38
Pearce, V.J. 24
Pearson, F.S. 24
Pechnsky, F. 13, 41, 42, 72
Peck, J.A. 10, 78
Peirce, J.M. 35
Peles, E. 36, 51, 63
Penetar, D. 46
Penetar, D.M. 68, 71
Pennick, M. 32
Pentkowski, N.S. 50, 69
Pepper, N. 22, 63
Pereira, R. 14
Pérez de los Cobos, J. 63
Perez, G. 18
Perkins, K. 55
Perlman, D.C. 22, 63
Perrine, S.A. 25, 26, 85
Perry, E. 56
Perry, J.L. 30
Persch, K.N. 14
Peters, E.N. 56
Petersen, P.M. 60
Peterson, A.T. 79
Peterson, B. 46
Peterson, J.A. 23
Petit, G. 12
Pettinati, H.M. 72
Pfeil, E.C. 84
Pfister, H. 15
Pharo, P. 75
Phipps, L. 57
Picetti, R. 53
Pönitz, H.M. 72
Picetti, R. 53
Picker, M.J. 21, 27
Piechaczek, M. 15
Pieper, B. 51, 63
Pierce, C. 51
<table>
<thead>
<tr>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pierre, P.J.</td>
<td>54</td>
</tr>
<tr>
<td>Pittman, B.</td>
<td>71, 74</td>
</tr>
<tr>
<td>Pixa, A.</td>
<td>24</td>
</tr>
<tr>
<td>Platt, D.M.</td>
<td>17, 53, 65, 68</td>
</tr>
<tr>
<td>Plemmens, G.</td>
<td>13</td>
</tr>
<tr>
<td>Pletcher, M.</td>
<td>3, 35, 72</td>
</tr>
<tr>
<td>Ploutz-Snyder, R.J.</td>
<td>39</td>
</tr>
<tr>
<td>Pixa, A.</td>
<td>24</td>
</tr>
<tr>
<td>Platt, D.M.</td>
<td>17, 53, 65, 68</td>
</tr>
<tr>
<td>Rabin, W.N.</td>
<td>26, 35</td>
</tr>
<tr>
<td>Radler, D.</td>
<td>63</td>
</tr>
<tr>
<td>Radovanovic, M.</td>
<td>20, 73, 76</td>
</tr>
<tr>
<td>Rainey, P.M.</td>
<td>32</td>
</tr>
<tr>
<td>Rallapalli, S.</td>
<td>65, 68</td>
</tr>
<tr>
<td>Ramchand, R.</td>
<td>64</td>
</tr>
<tr>
<td>Randall, S.</td>
<td>68</td>
</tr>
<tr>
<td>Rataemane, L.</td>
<td>40</td>
</tr>
<tr>
<td>Rataemane, S.</td>
<td>40</td>
</tr>
<tr>
<td>Rathnayaka, N.</td>
<td>81</td>
</tr>
<tr>
<td>Rawson, R.A.</td>
<td>8, 10, 24, 33, 40, 61, 62, 77, 78</td>
</tr>
<tr>
<td>Ray, B.</td>
<td>66, 70</td>
</tr>
<tr>
<td>Raymond, K.</td>
<td>71, 81</td>
</tr>
<tr>
<td>Realmuto, G.</td>
<td>83</td>
</tr>
<tr>
<td>Reback, C.J.</td>
<td>10</td>
</tr>
<tr>
<td>Rebok, G.</td>
<td>18</td>
</tr>
<tr>
<td>Reddy, K.</td>
<td>26</td>
</tr>
<tr>
<td>Reed, B.</td>
<td>54</td>
</tr>
<tr>
<td>Reed, S.</td>
<td>77</td>
</tr>
<tr>
<td>Reed, S.C.</td>
<td>32</td>
</tr>
<tr>
<td>Reichel, C.</td>
<td>30</td>
</tr>
<tr>
<td>Reid, M.S.</td>
<td>70</td>
</tr>
<tr>
<td>Reilly, M.T.</td>
<td>54</td>
</tr>
<tr>
<td>Reimann, E.</td>
<td>51</td>
</tr>
<tr>
<td>Reisinger, H.S.</td>
<td>23</td>
</tr>
<tr>
<td>Reissig, C.J.</td>
<td>68</td>
</tr>
<tr>
<td>Ren, X.</td>
<td>66</td>
</tr>
<tr>
<td>Renshaw, P.F.</td>
<td>31, 55</td>
</tr>
<tr>
<td>Resnick, M.P.</td>
<td>22</td>
</tr>
<tr>
<td>Reutenauer, E.L.</td>
<td>56</td>
</tr>
<tr>
<td>Reyes-Pulliza, J.C.</td>
<td>12</td>
</tr>
<tr>
<td>Reynolds, A.R.</td>
<td>32</td>
</tr>
<tr>
<td>Reynolds, B.</td>
<td>11, 59</td>
</tr>
<tr>
<td>Reynolds, E.K.</td>
<td>20, 61, 71, 81</td>
</tr>
<tr>
<td>Reynolds, M.</td>
<td>57</td>
</tr>
<tr>
<td>Rhodes, A.G.</td>
<td>10, 30</td>
</tr>
<tr>
<td>Rice, K.C.</td>
<td>21, 27, 65</td>
</tr>
<tr>
<td>Rice, T.</td>
<td>77</td>
</tr>
<tr>
<td>Richard, K.</td>
<td>67</td>
</tr>
<tr>
<td>Richards, J.B.</td>
<td>16, 54</td>
</tr>
<tr>
<td>Richards, J.M.</td>
<td>34, 81</td>
</tr>
<tr>
<td>Richard, S.</td>
<td>55</td>
</tr>
<tr>
<td>Ridick, N.V.</td>
<td>31</td>
</tr>
<tr>
<td>Ridenour, T.</td>
<td>57</td>
</tr>
<tr>
<td>Rieckmann, T.</td>
<td>19, 22</td>
</tr>
<tr>
<td>Riggs, P.D.</td>
<td>12, 13, 40, 78</td>
</tr>
<tr>
<td>Riley, A.L.</td>
<td>27, 30, 51, 53</td>
</tr>
<tr>
<td>Riley, B.</td>
<td>75</td>
</tr>
<tr>
<td>Ring-Kurtz, S.</td>
<td>40</td>
</tr>
<tr>
<td>Rinker, D.V.</td>
<td>75</td>
</tr>
<tr>
<td>Rinker, J.A.</td>
<td>30, 51</td>
</tr>
<tr>
<td>Rios-Bedoya, C.F.</td>
<td>20, 73</td>
</tr>
<tr>
<td>Rivera, R.</td>
<td>81</td>
</tr>
<tr>
<td>Roache, J.D.</td>
<td>28</td>
</tr>
<tr>
<td>Robbins, G.</td>
<td>71</td>
</tr>
<tr>
<td>Roberts, R.</td>
<td>52</td>
</tr>
<tr>
<td>Roberts, S.</td>
<td>58</td>
</tr>
<tr>
<td>Robinson, J.</td>
<td>23</td>
</tr>
<tr>
<td>Robles, R.R.</td>
<td>12</td>
</tr>
<tr>
<td>Rocha, N.S.</td>
<td>42</td>
</tr>
<tr>
<td>Roddy, J.K.</td>
<td>22</td>
</tr>
<tr>
<td>Rodolico, J.</td>
<td>46</td>
</tr>
<tr>
<td>Rodriguez, A.</td>
<td>63, 70</td>
</tr>
<tr>
<td>Rodriguez, T.</td>
<td>13</td>
</tr>
<tr>
<td>Roehrs, T.</td>
<td>21, 68</td>
</tr>
<tr>
<td>Rogers, L.R.</td>
<td>59</td>
</tr>
<tr>
<td>Rogers, R.</td>
<td>42</td>
</tr>
<tr>
<td>Roget, N.A.</td>
<td>6, 34, 40, 46, 78</td>
</tr>
<tr>
<td>Rogowska, J.</td>
<td>31</td>
</tr>
<tr>
<td>Rohrbacher, H.</td>
<td>24, 56</td>
</tr>
<tr>
<td>Roland, C.</td>
<td>37</td>
</tr>
<tr>
<td>Romach, M.K.</td>
<td>74</td>
</tr>
<tr>
<td>Roman, P.</td>
<td>8</td>
</tr>
<tr>
<td>Romano, E.</td>
<td>31</td>
</tr>
<tr>
<td>Romanova, T.</td>
<td>3, 60</td>
</tr>
<tr>
<td>Rosa, C.L.</td>
<td>76</td>
</tr>
<tr>
<td>Rosa, M.C.</td>
<td>13</td>
</tr>
<tr>
<td>Rose, J.E.</td>
<td>49, 83</td>
</tr>
<tr>
<td>Rose-Jacobs, R.</td>
<td>57</td>
</tr>
<tr>
<td>Rosen, M.I.</td>
<td>18</td>
</tr>
<tr>
<td>Rosenblum, A.</td>
<td>4, 36</td>
</tr>
<tr>
<td>Rosenfeld, J.</td>
<td>35</td>
</tr>
<tr>
<td>Rosenheck, R.A.</td>
<td>18</td>
</tr>
<tr>
<td>Rosenthal, R.N.</td>
<td>3</td>
</tr>
<tr>
<td>Rosko, K.</td>
<td>44</td>
</tr>
<tr>
<td>Roth, S.</td>
<td>78</td>
</tr>
<tr>
<td>Roth, T.</td>
<td>21, 68</td>
</tr>
</tbody>
</table>

97
<table>
<thead>
<tr>
<th>Author Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rothenberg, L.R.</td>
<td>17</td>
</tr>
<tr>
<td>Rothman, R.B.</td>
<td>16, 51</td>
</tr>
<tr>
<td>Rotily, M.</td>
<td>38</td>
</tr>
<tr>
<td>Rotrosen, J.</td>
<td>3, 40</td>
</tr>
<tr>
<td>Rounsaville, B.J.</td>
<td>18, 80</td>
</tr>
<tr>
<td>Routt, V.</td>
<td>80</td>
</tr>
<tr>
<td>Rowlett, J.K.</td>
<td>17, 53, 68</td>
</tr>
<tr>
<td>Roy, É.</td>
<td>12</td>
</tr>
<tr>
<td>Rubio, N.</td>
<td>46</td>
</tr>
<tr>
<td>Rudolph, A.E.</td>
<td>38</td>
</tr>
<tr>
<td>Rudoy, C.A.</td>
<td>31, 50</td>
</tr>
<tr>
<td>Ruehlmann, A.</td>
<td>24</td>
</tr>
<tr>
<td>Ruiz, J.</td>
<td>47</td>
</tr>
<tr>
<td>Runyon, S.P.</td>
<td>32, 80</td>
</tr>
<tr>
<td>Rush, B.</td>
<td>19</td>
</tr>
<tr>
<td>Rush, B.R.</td>
<td>75</td>
</tr>
<tr>
<td>Rush, C.R.</td>
<td>32, 41, 55</td>
</tr>
<tr>
<td>Rusjan, P.</td>
<td>45</td>
</tr>
<tr>
<td>Russell, B.R.</td>
<td>14, 15</td>
</tr>
<tr>
<td>Rutkowski, B.A.</td>
<td>10, 77</td>
</tr>
<tr>
<td>Rutledge, M.</td>
<td>69</td>
</tr>
<tr>
<td>Rydin, D.</td>
<td>74</td>
</tr>
<tr>
<td>Sacco, K.A.</td>
<td>45</td>
</tr>
<tr>
<td>Saccone, P.A.</td>
<td>37</td>
</tr>
<tr>
<td>Sacerio, L.C.</td>
<td>72</td>
</tr>
<tr>
<td>Sacks, J.</td>
<td>38, 73</td>
</tr>
<tr>
<td>Sacks, S.</td>
<td>10</td>
</tr>
<tr>
<td>Saeki, M.</td>
<td>14</td>
</tr>
<tr>
<td>Saha, S.</td>
<td>38</td>
</tr>
<tr>
<td>Saitz, R.</td>
<td>61, 74</td>
</tr>
<tr>
<td>Sakai, J.T.</td>
<td>81</td>
</tr>
<tr>
<td>Saladín, M.E.</td>
<td>32, 55, 57</td>
</tr>
<tr>
<td>Salas, J.</td>
<td>13</td>
</tr>
<tr>
<td>Salem, A.</td>
<td>15</td>
</tr>
<tr>
<td>Salmeron, B.J.</td>
<td>54</td>
</tr>
<tr>
<td>Salomon, R.M.</td>
<td>26</td>
</tr>
<tr>
<td>Salomonsen-Sautel, S.</td>
<td>12, 13</td>
</tr>
<tr>
<td>Sanabria, F.</td>
<td>69</td>
</tr>
<tr>
<td>Sánchez, H.</td>
<td>12</td>
</tr>
<tr>
<td>Sanchez, Z.V.</td>
<td>12, 13</td>
</tr>
<tr>
<td>Sánchez-Hervás, E.</td>
<td>70</td>
</tr>
<tr>
<td>Sancho, A.</td>
<td>23</td>
</tr>
<tr>
<td>Sandefér, E.</td>
<td>32</td>
</tr>
<tr>
<td>Sander, L.</td>
<td>57</td>
</tr>
<tr>
<td>Sanderson, S.</td>
<td>30</td>
</tr>
<tr>
<td>Sandvik, P.</td>
<td>68</td>
</tr>
<tr>
<td>Sanfilippo, L.C.</td>
<td>26, 35</td>
</tr>
<tr>
<td>Sanichwankul, K.</td>
<td>74</td>
</tr>
<tr>
<td>Sannerud, C.A.</td>
<td>23</td>
</tr>
<tr>
<td>Sannibale, C.</td>
<td>35</td>
</tr>
<tr>
<td>Santa Ana, E.</td>
<td>80</td>
</tr>
<tr>
<td>Santiago, O.J.</td>
<td>20</td>
</tr>
<tr>
<td>Santis, R.</td>
<td>13</td>
</tr>
<tr>
<td>Santonja Gómez, F.J.</td>
<td>70</td>
</tr>
<tr>
<td>Santos, D.</td>
<td>33</td>
</tr>
<tr>
<td>Santos, F.</td>
<td>72</td>
</tr>
<tr>
<td>Santos, G.</td>
<td>33</td>
</tr>
<tr>
<td>Santos, M.P.</td>
<td>42</td>
</tr>
<tr>
<td>Sargeant, M.N.</td>
<td>36</td>
</tr>
<tr>
<td>Sarnocinska Hart, A.</td>
<td>13</td>
</tr>
<tr>
<td>Satyanarayana, V.</td>
<td>3, 52</td>
</tr>
<tr>
<td>Saulsgiver, K.A.</td>
<td>11, 51</td>
</tr>
<tr>
<td>Sauvé, B.J.</td>
<td>67</td>
</tr>
<tr>
<td>Sayette, M.A.</td>
<td>55</td>
</tr>
<tr>
<td>Scharf, E.</td>
<td>70</td>
</tr>
<tr>
<td>Schaub, M.P.</td>
<td>23, 40, 41, 50</td>
</tr>
<tr>
<td>Scheidweiler, K.B.</td>
<td>51</td>
</tr>
<tr>
<td>Schen, S.</td>
<td>15</td>
</tr>
<tr>
<td>Schiff, M.</td>
<td>63, 64</td>
</tr>
<tr>
<td>Schlussman, S.D.</td>
<td>16</td>
</tr>
<tr>
<td>Schmidt, K.T.</td>
<td>21, 54</td>
</tr>
<tr>
<td>Schmidt, L.</td>
<td>8</td>
</tr>
<tr>
<td>Schmitz, J.M.</td>
<td>18, 59, 75, 82</td>
</tr>
<tr>
<td>Schmoutz, C.D.</td>
<td>80</td>
</tr>
<tr>
<td>Schnoll, S.</td>
<td>66</td>
</tr>
<tr>
<td>Schoedel, K.</td>
<td>46</td>
</tr>
<tr>
<td>Schoedel, K.A.</td>
<td>5, 14, 44, 74</td>
</tr>
<tr>
<td>Schoenberg, N.E.</td>
<td>55</td>
</tr>
<tr>
<td>Schoener, E.</td>
<td>36</td>
</tr>
<tr>
<td>Schott, J.</td>
<td>77</td>
</tr>
<tr>
<td>Schottenfeld, R.S.</td>
<td>39, 41, 60, 62</td>
</tr>
<tr>
<td>Schreiber, S.</td>
<td>36, 51, 63</td>
</tr>
<tr>
<td>Schroeder, J.</td>
<td>12</td>
</tr>
<tr>
<td>Schroeder, S.</td>
<td>24, 61</td>
</tr>
<tr>
<td>Schuler, M.S.</td>
<td>59</td>
</tr>
<tr>
<td>Schulte, M.</td>
<td>66</td>
</tr>
<tr>
<td>Schulteis, G.</td>
<td>84</td>
</tr>
<tr>
<td>Schumacher, J.A.</td>
<td>35, 60</td>
</tr>
<tr>
<td>Schumacher, J.E.</td>
<td>23, 38, 70</td>
</tr>
<tr>
<td>Schuster, C.</td>
<td>66</td>
</tr>
<tr>
<td>Schütz, C.G.</td>
<td>15</td>
</tr>
<tr>
<td>Schwappach, D.</td>
<td>41</td>
</tr>
<tr>
<td>Schwartz, R.P.</td>
<td>9, 23, 50, 51, 61, 62, 63, 74</td>
</tr>
<tr>
<td>Schwartz, S.</td>
<td>74</td>
</tr>
<tr>
<td>Schwarzkopf, L.</td>
<td>30</td>
</tr>
<tr>
<td>Schwedhelm, E.</td>
<td>52</td>
</tr>
<tr>
<td>Scrivo, N.</td>
<td>13</td>
</tr>
<tr>
<td>Secades-Villa, R.</td>
<td>70</td>
</tr>
<tr>
<td>Seckler, R.</td>
<td>32</td>
</tr>
<tr>
<td>See, R.E.</td>
<td>30, 50, 65, 80</td>
</tr>
<tr>
<td>Seewald, R.</td>
<td>22</td>
</tr>
<tr>
<td>Seibyl, J.</td>
<td>56, 71</td>
</tr>
<tr>
<td>Seitz, P.K.</td>
<td>52, 54</td>
</tr>
<tr>
<td>Selby, P.</td>
<td>36, 58, 84</td>
</tr>
<tr>
<td>Sellers, E.M.</td>
<td>5, 14, 44, 46, 74</td>
</tr>
<tr>
<td>Selley, D.E.</td>
<td>43</td>
</tr>
<tr>
<td>Seminerio, M.J.</td>
<td>16</td>
</tr>
<tr>
<td>Senoo, E.</td>
<td>41</td>
</tr>
<tr>
<td>Sepulveda, A.L.</td>
<td>19, 58</td>
</tr>
<tr>
<td>Serafínez, K.M.</td>
<td>53</td>
</tr>
<tr>
<td>Serre, F.</td>
<td>72</td>
</tr>
<tr>
<td>Setlow, B.</td>
<td>45</td>
</tr>
<tr>
<td>Setnik, B.</td>
<td>37, 79</td>
</tr>
<tr>
<td>Seu, E.</td>
<td>17</td>
</tr>
<tr>
<td>Sevak, R.J.</td>
<td>32</td>
</tr>
<tr>
<td>Severtson, S.G.</td>
<td>37, 39, 61, 62, 72</td>
</tr>
<tr>
<td>Shack, J.</td>
<td>60</td>
</tr>
<tr>
<td>Shade, S.</td>
<td>39</td>
</tr>
<tr>
<td>Shadley, M.L.</td>
<td>34</td>
</tr>
<tr>
<td>Shaikh, J.</td>
<td>16, 17</td>
</tr>
<tr>
<td>Sharp, V.</td>
<td>38</td>
</tr>
<tr>
<td>Sheer, A.</td>
<td>12</td>
</tr>
<tr>
<td>Sheidow, A.J.</td>
<td>48</td>
</tr>
<tr>
<td>Sheikhattari, P.</td>
<td>12, 77</td>
</tr>
<tr>
<td>Shin, C.</td>
<td>37</td>
</tr>
<tr>
<td>Shinday, N.M.</td>
<td>53</td>
</tr>
<tr>
<td>Shioikawa, M.</td>
<td>17</td>
</tr>
<tr>
<td>Shivers, K.Y.</td>
<td>21</td>
</tr>
<tr>
<td>Shoptaw, S.</td>
<td>9, 33, 42</td>
</tr>
<tr>
<td>Shurtleff, D.</td>
<td>82</td>
</tr>
<tr>
<td>Siegal, N.</td>
<td>65</td>
</tr>
<tr>
<td>Siegel, S.</td>
<td>37, 79</td>
</tr>
<tr>
<td>Siegrist, J.D.</td>
<td>3, 34</td>
</tr>
<tr>
<td>Sigmon, S.C.</td>
<td>11, 28, 51</td>
</tr>
<tr>
<td>Silveira, J.D.</td>
<td>22</td>
</tr>
<tr>
<td>Author Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Silveri, M.</td>
<td>81</td>
</tr>
<tr>
<td>Silverman, K.</td>
<td>62, 70</td>
</tr>
<tr>
<td>Simon, N.W.</td>
<td>45</td>
</tr>
<tr>
<td>Simoni-Wastila, L.</td>
<td>41</td>
</tr>
<tr>
<td>Simpson, N.W.</td>
<td>45</td>
</tr>
<tr>
<td>Sipone, M.</td>
<td>68</td>
</tr>
<tr>
<td>Singleton, R.</td>
<td>83</td>
</tr>
<tr>
<td>Singley, E.D.</td>
<td>30</td>
</tr>
<tr>
<td>Sinha, R.</td>
<td>2, 34</td>
</tr>
<tr>
<td>Sirion, N.</td>
<td>63</td>
</tr>
<tr>
<td>Sircar, R.</td>
<td>25, 26</td>
</tr>
<tr>
<td>Siripurapu, K.</td>
<td>45</td>
</tr>
<tr>
<td>Sisow, M.</td>
<td>63</td>
</tr>
<tr>
<td>Sirsing, L.J.</td>
<td>43</td>
</tr>
<tr>
<td>Sisv, R.</td>
<td>49, 65</td>
</tr>
<tr>
<td>Sokoloski, P.</td>
<td>77</td>
</tr>
<tr>
<td>Skelly, J.M.</td>
<td>58</td>
</tr>
<tr>
<td>Skinstad, A.H.</td>
<td>6, 34, 35, 46</td>
</tr>
<tr>
<td>Skolnik, P.R.</td>
<td>39</td>
</tr>
<tr>
<td>Skurtveit, S.</td>
<td>68</td>
</tr>
<tr>
<td>Slade, T.</td>
<td>41</td>
</tr>
<tr>
<td>Slavina, T.</td>
<td>3</td>
</tr>
<tr>
<td>Slavitzky, S.B.</td>
<td>13</td>
</tr>
<tr>
<td>Slesnick, N.</td>
<td>13</td>
</tr>
<tr>
<td>Slezk, J.M.</td>
<td>59</td>
</tr>
<tr>
<td>Slobodyanyuk, P.</td>
<td>23, 38</td>
</tr>
<tr>
<td>Slock, J.</td>
<td>18</td>
</tr>
<tr>
<td>Smart, M.</td>
<td>41</td>
</tr>
<tr>
<td>Smith, C.</td>
<td>84</td>
</tr>
<tr>
<td>Smith, D.M.</td>
<td>16</td>
</tr>
<tr>
<td>Smith, E.J.</td>
<td>58, 79</td>
</tr>
<tr>
<td>Smith, H.R.</td>
<td>53</td>
</tr>
<tr>
<td>Smith, M.</td>
<td>37, 46, 48</td>
</tr>
<tr>
<td>Smith, M.A.</td>
<td>53</td>
</tr>
<tr>
<td>Smith, P.C.</td>
<td>74</td>
</tr>
<tr>
<td>Smith, W.R.</td>
<td>58</td>
</tr>
<tr>
<td>Smyth, E.</td>
<td>39</td>
</tr>
<tr>
<td>Sneider, J.T.</td>
<td>31</td>
</tr>
<tr>
<td>Sodano, R.</td>
<td>40</td>
</tr>
<tr>
<td>Soenksen, S.</td>
<td>57</td>
</tr>
<tr>
<td>Sofuoglu, M.</td>
<td>20</td>
</tr>
<tr>
<td>Soibelman, M.</td>
<td>72</td>
</tr>
<tr>
<td>Solakhk, R.</td>
<td>50</td>
</tr>
<tr>
<td>Solomon, L.J.</td>
<td>57, 58</td>
</tr>
<tr>
<td>Somoza, E.</td>
<td>83</td>
</tr>
<tr>
<td>Sonne, S.C.</td>
<td>3</td>
</tr>
<tr>
<td>Sorensen, J.L.</td>
<td>38, 79</td>
</tr>
<tr>
<td>Sousa, T.</td>
<td>72</td>
</tr>
<tr>
<td>Sparatore, F.</td>
<td>30</td>
</tr>
<tr>
<td>Sparenburg, S.</td>
<td>77</td>
</tr>
<tr>
<td>Spealman, R.D.</td>
<td>17, 69</td>
</tr>
<tr>
<td>Spear, MS, S.E.</td>
<td>24</td>
</tr>
<tr>
<td>Spence, R.</td>
<td>23</td>
</tr>
<tr>
<td>Spiess, J.</td>
<td>71</td>
</tr>
<tr>
<td>Spiller, H.A.</td>
<td>37, 38</td>
</tr>
<tr>
<td>Spiller, S.S.</td>
<td>37, 38</td>
</tr>
<tr>
<td>Spivey, R.</td>
<td>21, 37</td>
</tr>
<tr>
<td>Springer, R.</td>
<td>77</td>
</tr>
<tr>
<td>Sproule, B.A.</td>
<td>36</td>
</tr>
<tr>
<td>Stabile, P.</td>
<td>41</td>
</tr>
<tr>
<td>Stadlin, A.</td>
<td>74</td>
</tr>
<tr>
<td>Stahler, G.</td>
<td>36</td>
</tr>
<tr>
<td>Staios, G.</td>
<td>36</td>
</tr>
<tr>
<td>Stairs, D.J.</td>
<td>30</td>
</tr>
<tr>
<td>Staley, J.</td>
<td>56, 71</td>
</tr>
<tr>
<td>Stallings, M.</td>
<td>9</td>
</tr>
<tr>
<td>Stanger, C.</td>
<td>60</td>
</tr>
<tr>
<td>Stasiewicz, P.R.</td>
<td>35</td>
</tr>
<tr>
<td>Statum, M.</td>
<td>76</td>
</tr>
<tr>
<td>Staton-Tindall, M.</td>
<td>9, 73, 78</td>
</tr>
<tr>
<td>Staub, D.R.</td>
<td>65</td>
</tr>
<tr>
<td>Staufler, J.</td>
<td>21</td>
</tr>
<tr>
<td>Steinberg, J.</td>
<td></td>
</tr>
<tr>
<td>Steinberg, J.L.</td>
<td>26, 71, 81</td>
</tr>
<tr>
<td>Steinmiiller, C.L.</td>
<td>22, 33, 57, 60</td>
</tr>
<tr>
<td>Stenger, A.</td>
<td>85</td>
</tr>
<tr>
<td>Stenger, V.A.</td>
<td>85</td>
</tr>
<tr>
<td>Stevens Manser, S.</td>
<td>23</td>
</tr>
<tr>
<td>Stevens, C.W.</td>
<td>17</td>
</tr>
<tr>
<td>Stevens, D.</td>
<td>3</td>
</tr>
<tr>
<td>Stickgold, R.</td>
<td>70</td>
</tr>
<tr>
<td>Stiklus, S.</td>
<td>56, 71</td>
</tr>
<tr>
<td>Stine, S.</td>
<td>58, 83, 84</td>
</tr>
<tr>
<td>Sitzter, M.</td>
<td>19, 41, 57, 62</td>
</tr>
<tr>
<td>Stoduto, G.</td>
<td>11</td>
</tr>
<tr>
<td>Stohler, R.</td>
<td>23, 35, 40, 50</td>
</tr>
<tr>
<td>Stoll, K.B.</td>
<td>35</td>
</tr>
<tr>
<td>Stone, A.M.</td>
<td>71, 83</td>
</tr>
<tr>
<td>Stoops, W.W.</td>
<td>7, 8, 32, 41, 55</td>
</tr>
<tr>
<td>Storr, C.L.</td>
<td>37, 56</td>
</tr>
<tr>
<td>Stotts, A.L.</td>
<td>18</td>
</tr>
<tr>
<td>Strain, E.C.</td>
<td>18, 35, 62, 74, 84</td>
</tr>
<tr>
<td>Strickland, J.</td>
<td>64</td>
</tr>
<tr>
<td>Strike, C.</td>
<td>13</td>
</tr>
<tr>
<td>Striley, C.W.</td>
<td>3, 10, 60</td>
</tr>
<tr>
<td>Stroud, Z.B.</td>
<td>11</td>
</tr>
<tr>
<td>Studts, J.L.</td>
<td>22</td>
</tr>
<tr>
<td>Stutz, S.J.</td>
<td>52</td>
</tr>
<tr>
<td>Stuver, S.</td>
<td>39</td>
</tr>
<tr>
<td>Su, Z.</td>
<td>20</td>
</tr>
<tr>
<td>Suárez Vázquez, R.</td>
<td>20</td>
</tr>
<tr>
<td>Suchman, N.</td>
<td>5</td>
</tr>
<tr>
<td>Sugar, C.A.</td>
<td>33</td>
</tr>
<tr>
<td>Sughondhabir, A.</td>
<td>74</td>
</tr>
<tr>
<td>Sugita, W.</td>
<td>77</td>
</tr>
<tr>
<td>Suh, J.J.</td>
<td>31, 49, 50, 65</td>
</tr>
<tr>
<td>Sullivan, C.</td>
<td>76</td>
</tr>
<tr>
<td>Sullivan, K.A.</td>
<td>36</td>
</tr>
<tr>
<td>Sullivan, L.</td>
<td>62</td>
</tr>
<tr>
<td>Sullivan, M.A.</td>
<td>37, 62, 66</td>
</tr>
<tr>
<td>Summers, K.M.</td>
<td>34, 35</td>
</tr>
<tr>
<td>Sun, W.</td>
<td>20</td>
</tr>
<tr>
<td>Sun, Z.</td>
<td>15</td>
</tr>
<tr>
<td>Sunahara, R.K.</td>
<td>69</td>
</tr>
<tr>
<td>Sung, Y.</td>
<td>31</td>
</tr>
<tr>
<td>Suratt, C.K.</td>
<td>2</td>
</tr>
<tr>
<td>Suratt, H.L.</td>
<td>9, 10, 11</td>
</tr>
<tr>
<td>Sussman, J.</td>
<td>72</td>
</tr>
<tr>
<td>Suwal, K.</td>
<td>35</td>
</tr>
<tr>
<td>Suzuki, T.</td>
<td>14, 17</td>
</tr>
<tr>
<td>Svikis, D.S.</td>
<td>8, 19, 35, 57, 58, 83, 74, 84</td>
</tr>
<tr>
<td>Sviridova, V.</td>
<td>23</td>
</tr>
<tr>
<td>Swann, A.C.</td>
<td>59, 71</td>
</tr>
<tr>
<td>Swanson, A.N.</td>
<td>33, 42</td>
</tr>
<tr>
<td>Szalay, J.J.</td>
<td>50</td>
</tr>
<tr>
<td>Szobbot, C.</td>
<td>42</td>
</tr>
<tr>
<td>Szumlinski, K.K.</td>
<td>15, 50, 54</td>
</tr>
<tr>
<td>Tabibnia, G.</td>
<td>59, 85</td>
</tr>
<tr>
<td>Tahsili-Fahadan, P.</td>
<td>26, 27</td>
</tr>
<tr>
<td>Tai, B.</td>
<td>77</td>
</tr>
<tr>
<td>Tajima, B.</td>
<td>22</td>
</tr>
<tr>
<td>Takagi, S.</td>
<td>17</td>
</tr>
<tr>
<td>Takahashi, N.</td>
<td>52</td>
</tr>
<tr>
<td>Takei, D.</td>
<td>17</td>
</tr>
<tr>
<td>Talal, A.</td>
<td>39</td>
</tr>
<tr>
<td>Tamagnan, G.</td>
<td>56, 71</td>
</tr>
<tr>
<td>Tanabe, J.</td>
<td>42, 81</td>
</tr>
<tr>
<td>Tangerlini, N.</td>
<td>72</td>
</tr>
<tr>
<td>Tapert, S.F.</td>
<td>57, 71</td>
</tr>
<tr>
<td>Taraschenko, O.</td>
<td>14</td>
</tr>
<tr>
<td>Tartarini, W.</td>
<td>46</td>
</tr>
<tr>
<td>Tarter, R.</td>
<td>57</td>
</tr>
<tr>
<td>Author</td>
<td>Page(s)</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Tasso, B.</td>
<td>30</td>
</tr>
<tr>
<td>Tau, G.</td>
<td>46</td>
</tr>
<tr>
<td>Taxman, F.</td>
<td>8</td>
</tr>
<tr>
<td>Taxman, F.S.</td>
<td>10, 73</td>
</tr>
<tr>
<td>Taylor, P.</td>
<td>45</td>
</tr>
<tr>
<td>Taylor, R.C.</td>
<td>54</td>
</tr>
<tr>
<td>Teesson, M.</td>
<td>10, 12, 35, 41</td>
</tr>
<tr>
<td>Tella, S.R.</td>
<td>23, 28</td>
</tr>
<tr>
<td>Temes, C.</td>
<td>40</td>
</tr>
<tr>
<td>Templin, T.N.</td>
<td>51, 63</td>
</tr>
<tr>
<td>Teruya, C.</td>
<td>10, 40</td>
</tr>
<tr>
<td>Terwilliger, E.F.</td>
<td>66</td>
</tr>
<tr>
<td>Teske, J.A.</td>
<td>30</td>
</tr>
<tr>
<td>Thakkar, V.</td>
<td>70</td>
</tr>
<tr>
<td>Thawley, R.</td>
<td>22</td>
</tr>
<tr>
<td>Thiel, K.J.</td>
<td>69, 80</td>
</tr>
<tr>
<td>Thomas, B.F.</td>
<td>32</td>
</tr>
<tr>
<td>Thomas, R.K.</td>
<td>11</td>
</tr>
<tr>
<td>Thompson, A.C.</td>
<td>16, 54</td>
</tr>
<tr>
<td>Thompson, L.L.</td>
<td>71, 81</td>
</tr>
<tr>
<td>Thorberg, F.A.</td>
<td>36</td>
</tr>
<tr>
<td>Thorgeirsson, T.</td>
<td>82</td>
</tr>
<tr>
<td>Thoueilles, P.</td>
<td>72</td>
</tr>
<tr>
<td>Thurstone, C.</td>
<td>12, 13</td>
</tr>
<tr>
<td>Tiburcio, N.J.</td>
<td>42, 73</td>
</tr>
<tr>
<td>Tidey, J.W.</td>
<td>55</td>
</tr>
<tr>
<td>Tindall, M.</td>
<td>10</td>
</tr>
<tr>
<td>Tobin, K.E.</td>
<td>38, 60</td>
</tr>
<tr>
<td>Tolliver, B.</td>
<td>32</td>
</tr>
<tr>
<td>Tompkins, D.A.</td>
<td>35, 74</td>
</tr>
<tr>
<td>Torigoe, K.</td>
<td>17</td>
</tr>
<tr>
<td>Toro, J.</td>
<td>12</td>
</tr>
<tr>
<td>Torrence, M.C.</td>
<td>26</td>
</tr>
<tr>
<td>Torrington, M.</td>
<td>63, 77</td>
</tr>
<tr>
<td>Touchard, F.</td>
<td>72</td>
</tr>
<tr>
<td>Tracy, M.</td>
<td>30</td>
</tr>
<tr>
<td>Travis, D.</td>
<td>23</td>
</tr>
<tr>
<td>Treese, M.</td>
<td>37</td>
</tr>
<tr>
<td>Tres, I.</td>
<td>14</td>
</tr>
<tr>
<td>Trezsa, C.</td>
<td>63</td>
</tr>
<tr>
<td>Tross, S.</td>
<td>45</td>
</tr>
<tr>
<td>Trotman, A.J.</td>
<td>73</td>
</tr>
<tr>
<td>Trudeau, K.J.</td>
<td>75</td>
</tr>
<tr>
<td>Trujols, J.</td>
<td>63</td>
</tr>
<tr>
<td>Truong, Y.N.</td>
<td>52</td>
</tr>
<tr>
<td>Tsai, W.</td>
<td>76, 77, 78</td>
</tr>
<tr>
<td>Tsamis, V.J.</td>
<td>18</td>
</tr>
<tr>
<td>Tschibelu, E.</td>
<td>34</td>
</tr>
<tr>
<td>Tsibulsky, V.</td>
<td>47</td>
</tr>
<tr>
<td>Tsibulsky, V.L.</td>
<td>75</td>
</tr>
<tr>
<td>Tsoi, M.</td>
<td>3</td>
</tr>
<tr>
<td>Tucha, O.</td>
<td>15</td>
</tr>
<tr>
<td>Tucker, J.</td>
<td>3, 35</td>
</tr>
<tr>
<td>Tuten, M.</td>
<td>58, 84</td>
</tr>
<tr>
<td>Twiggs, R.</td>
<td>42</td>
</tr>
<tr>
<td>Tyson, C.</td>
<td>3, 78</td>
</tr>
<tr>
<td>Tyurina, A.</td>
<td>3</td>
</tr>
<tr>
<td>Tzall, D.</td>
<td>9</td>
</tr>
<tr>
<td>Uemura, Y.</td>
<td>66</td>
</tr>
<tr>
<td>Unterman, E.M.</td>
<td>16</td>
</tr>
<tr>
<td>Upadhyaya, H.P.</td>
<td>3, 55, 71, 75</td>
</tr>
<tr>
<td>Urada, D.</td>
<td>10</td>
</tr>
<tr>
<td>Urbaitis, J.</td>
<td>51</td>
</tr>
<tr>
<td>Valdez, G.R.</td>
<td>17</td>
</tr>
<tr>
<td>Valverde, E.</td>
<td>70</td>
</tr>
<tr>
<td>Van den Brink, W.</td>
<td>42</td>
</tr>
<tr>
<td>Van Hout, M.A.</td>
<td>73</td>
</tr>
<tr>
<td>Van Linn, M.L.</td>
<td>65, 68</td>
</tr>
<tr>
<td>Van Voorhees, E.E.</td>
<td>83</td>
</tr>
<tr>
<td>Van Zastrow, M.</td>
<td>1</td>
</tr>
<tr>
<td>Vandrey, R.</td>
<td>41, 46, 62</td>
</tr>
<tr>
<td>VanScoyoc, J.</td>
<td>60</td>
</tr>
<tr>
<td>Vanswickel, A.R.</td>
<td>32, 55</td>
</tr>
<tr>
<td>Vanyukov, M.</td>
<td>57</td>
</tr>
<tr>
<td>Varastet, M.</td>
<td>38</td>
</tr>
<tr>
<td>Vargas, C.</td>
<td>80</td>
</tr>
<tr>
<td>Varon, J.</td>
<td>39, 54, 66, 70</td>
</tr>
<tr>
<td>Vasquez, E.</td>
<td>77</td>
</tr>
<tr>
<td>Vaswani, M.</td>
<td>69</td>
</tr>
<tr>
<td>Vederhus, J.K.</td>
<td>40, 62</td>
</tr>
<tr>
<td>Velduizen, S.</td>
<td>75</td>
</tr>
<tr>
<td>Venisse, J.</td>
<td>34</td>
</tr>
<tr>
<td>Verbetskaya, E.</td>
<td>3</td>
</tr>
<tr>
<td>Verendez, A.</td>
<td>27</td>
</tr>
<tr>
<td>Verhulst, F.</td>
<td>44</td>
</tr>
<tr>
<td>Viana, R.</td>
<td>65</td>
</tr>
<tr>
<td>Villapiano, A.</td>
<td>75</td>
</tr>
<tr>
<td>Vincent, K.</td>
<td>64</td>
</tr>
<tr>
<td>Vittinghoff, E.</td>
<td>33</td>
</tr>
<tr>
<td>Vlahov, D.</td>
<td>42, 63, 67</td>
</tr>
<tr>
<td>Vocci, F.</td>
<td>80</td>
</tr>
<tr>
<td>Voci, S.</td>
<td>36</td>
</tr>
<tr>
<td>Vogl, L.E.</td>
<td>12</td>
</tr>
<tr>
<td>Volkow, N.</td>
<td>1</td>
</tr>
<tr>
<td>Vollebergh, W.</td>
<td>44</td>
</tr>
<tr>
<td>Vosburg, S.K.</td>
<td>18, 37, 57, 66, 77</td>
</tr>
<tr>
<td>Votaw, J.R.</td>
<td>50</td>
</tr>
<tr>
<td>Vuchinich, R.E.</td>
<td>70</td>
</tr>
<tr>
<td>Waal, H.</td>
<td>4, 10, 62</td>
</tr>
<tr>
<td>Wada, K.</td>
<td>54</td>
</tr>
<tr>
<td>Wade, D.</td>
<td>51</td>
</tr>
<tr>
<td>Wade, M.A.</td>
<td>69</td>
</tr>
<tr>
<td>Wagner, F.A.</td>
<td>12, 41, 56, 77</td>
</tr>
<tr>
<td>Wagner, M.</td>
<td>58</td>
</tr>
<tr>
<td>Wakim, P.G.</td>
<td>76</td>
</tr>
<tr>
<td>Walkey, A.A.</td>
<td>20</td>
</tr>
<tr>
<td>Waldrop, A.E.</td>
<td>38</td>
</tr>
<tr>
<td>Walker, K.L.</td>
<td>53</td>
</tr>
<tr>
<td>Walker, Q.D.</td>
<td>53</td>
</tr>
<tr>
<td>Wallace, D.</td>
<td>70</td>
</tr>
<tr>
<td>Wallace, L.</td>
<td>48</td>
</tr>
<tr>
<td>Walley, A.Y.</td>
<td>39, 51</td>
</tr>
<tr>
<td>Walquist, A.</td>
<td>19</td>
</tr>
<tr>
<td>Walsh, S.L.</td>
<td>1, 4, 8, 25, 32, 46, 49, 70</td>
</tr>
<tr>
<td>Walton, M.</td>
<td>14</td>
</tr>
<tr>
<td>Wan, R.</td>
<td>14</td>
</tr>
<tr>
<td>Wang, C.</td>
<td>21</td>
</tr>
<tr>
<td>Wang, F.L.</td>
<td>71</td>
</tr>
<tr>
<td>Wang, J.</td>
<td>42</td>
</tr>
<tr>
<td>Wang, M.</td>
<td>23</td>
</tr>
<tr>
<td>Wang, Y.</td>
<td>64</td>
</tr>
<tr>
<td>Wang, Z.</td>
<td>31, 46, 49, 50, 65</td>
</tr>
<tr>
<td>Warda, U.</td>
<td>19</td>
</tr>
<tr>
<td>Wase, L.</td>
<td>37, 79</td>
</tr>
<tr>
<td>Washio, Y.</td>
<td>58</td>
</tr>
<tr>
<td>Waters, P.</td>
<td>6</td>
</tr>
<tr>
<td>Watson, C.S.</td>
<td>54</td>
</tr>
<tr>
<td>Watson, D.W.</td>
<td>40, 76, 77, 78</td>
</tr>
<tr>
<td>Watson, N.L.</td>
<td>55</td>
</tr>
<tr>
<td>Weaver, J.C.</td>
<td>11</td>
</tr>
<tr>
<td>Weber, S.</td>
<td>50</td>
</tr>
<tr>
<td>Webster, M.</td>
<td>78</td>
</tr>
<tr>
<td>Wechsberg, W.M.</td>
<td>58, 60, 79</td>
</tr>
<tr>
<td>Wee, S.</td>
<td>84</td>
</tr>
</tbody>
</table>
AUTHOR INDEX

Weinberger, A.H. 56
Weinstein, E. 70
Weintraub, E. 51
Weiss, L. 9, 62, 63
Weiss, R.D. 56, 76, 83
Welch, M. 83
Welch, S.P. 43
Wellman, P.J. 45
Wells, A.M. 50
Weltzin, M. 66
Wender, C. 13
Wendt, W. 46
Wenger, G.R. 4, 41
Wenzel, J.M. 52
Wesley, M.J. 26
Wesnoski, S.A. 23
West, D. 13
Wetherington, C. 24
Wey, A. 33
Wheelock, A. 23
Whitaker, D. 39, 41, 61
White, J.M. 51, 52, 67
Widner, G. 73
Wiechelt, S. 78
Wilcoxon, H. 64
Wiley, J. 8
Wilkinson, J. 39
Williams, A.M. 77
Williams, E. 76
Williams, K.L. 40
Williams, M.J. 31
Willner-Reid, J. 19
Wilson, A. 45
Wilson, J. 78
Wilson, M.E. 73, 74
Windsor, L.C. 23
Winhusen, T. 83
Winklbaur, B. 63

Winstanley, E.L. 35
Winters, K. 7, 83
Wish, E. 64
Wisniewski, S. 53
Witas, J. 61
Witkin, B.M. 52
Wittchen, H.U. 15, 24, 44, 56
Wolf, M. 48
Wong, C.J. 55, 70
Wong, L.L. 23
Wood, R. 37
Woods, J.H. 30, 52, 69
Woods, W.L. 40
Woodson, T. 9
Woodward, N.D. 26
Woody, G.E. 3, 25
Wooters, T.E. 14
Wright, C. 77
Wu, F. 40
Wu, G. 46
Wu, H. 2
Wu, L. 26
Wunsch, M.J. 4, 46
Wyman, B.J. 35
Xie, Z. 84
Xu, D. 46
Xu, Y. 17
Xue, L. 31

Yakovenko, V. 14
Yang, J. 10
Yang, Z. 53
Yango, E. 77
Yao, W.D. 53
Yi, R. 13, 46, 55, 81
Yondorf, M. 54
Yoon, J.H. 58
Yoon, S.J. 31
Yoshizawa, K. 14
Young, R.M. 36
Young, S. 9
Yu, S. 46
Yufarov, V. 17
Yurgelun-Todd, D. 31, 81

Zacarés Romaguera, F. 70
Zack, M. 36
Zagidullin, M. 46
Zakharova, E. 30, 51
Zalcman, R.F. 11
Zamarelli, L. 22
Zanis, D.A. 23
Zastowny, T. 8
Zawertailo, L. 45
Zawertailo, L.A. 36
Zeiger, A. 18
Zeller, M. 49
Zernig, G. 43
Zezyulin, O. 23, 38
Zhang, X. 46
Zhang, Y. 16, 32
Zhao, N. 57
Zheng, G. 45
Zhou, L. 20
Zhou, M. 16
Zhou, W. 39
Zhou, Y. 25, 80
Ziedonis, D. 22
Zolkowska, D. 51
Zolot, L.M. 11
Zosel, A.E. 37
Zubaran, C. 14
Zuniga, E.A. 26
Zvolensky, M.J. 64
Opioid receptors are critical therapeutic targets for medication development relevant to the treatment of drug dependence and pain. With increased knowledge of opioid receptors as ligand-regulated protein complexes and their genetic characterization, new approaches for pharmacological manipulation of opioid complexes have emerged that promise to increase the effectiveness of opioid-receptor-mediated therapeutics. This symposium will provide a contemporary review of molecular mechanisms of opioid receptor signaling and mechanics and translate the importance of these actions to the underlying mechanisms of tolerance, analgesia and drug reward as well as to the design of efficacious pharmacotherapeutics. It is increasingly clear that opioid receptors, like many other signal-transducing receptors that function in the nervous system, are regulated by membrane trafficking through the endocytic pathway. Clinically relevant opioid drugs differ significantly in their effects on this regulatory mechanism, and there are also cell type-specific differences in regulated endocytosis that are only beginning to be understood. Additionally, the importance of opioid single nucleotide polymorphisms (SNPs) and their potential role in a variety of drug addiction and pain sensitivity phenotypes will be reviewed in both animal and human models. Thus, both in vitro and in vivo studies will explore the molecular and genetic underpinnings of opioid receptor-mediated events relevant to analgesia, tolerance and drug dependence.

I. How Does Stress Contribute to Addiction Vulnerability?  
Studies from Adolescent and Adult Samples  
Chairs: Rajita Sinha and Kathleen T. Brady

Prospective evidence indicates that stress and cumulative adversity increases risk of addictive disorders. Gender differences in stress-related mechanisms may further contribute to such risk. While there is preclinical evidence indicating that stress-related factors alter the responses of the hypothalamic-pituitary-adrenal (HPA) axis and the mesolimbic reward pathways to increase such risk, evidence from human studies has been rare. This symposium will present new data from humans, using prospective longitudinal, laboratory-based and brain imaging approaches, to identify how stress may contribute to addiction vulnerability. Speakers will discuss the types of stress that increase addiction risk, the specific HPA axis and brain responses predictive of addiction vulnerability, and the contribution of gender, race and developmental stage (adolescent and adult) on these effects. Data on effects of stress, emotion regulation and race in prediction of addiction risk in young, low-income women will be presented as well as prospective longitudinal data from a large cohort of early adolescents to show HPA axis measures are predictive of later use and abuse of smoking and drinking. Stress-related HPA axis responses and association with substance use behaviors in prenatally cocaine exposed and non-exposed adolescent girls and boys will be discussed. Neuroimaging data on stress-related alteration in nucleus accumbens activity that is associated with maladaptive behaviors in adults will be presented. Findings will be summarized in the broader context of translational research on stress and addiction vulnerability and their implications for addiction prevention.
SYMPOSIA

II. Virtual Modeling: A New Frontier for Investigating Drug-Receptor Interactions
Chair: Christopher K. Surrat

Computer-based molecular modeling of drug receptors and their ligands has been a goal since the 1970s. The lack of reliable structural information precluded development of useful molecular models until the 1990s. Crystallization of the nicotinic acetylcholine receptor and the cloning of GPCRs and transporter proteins that recognize abused drugs opened the door to 3-D understanding of drug receptors. This symposium will outline how in silico approaches are elucidating relationships between small molecule ligands and their opiate, cocaine or nicotine receptors. The specific aims are to visualize in 3-D space drug receptors at amino acid residue level of resolution, to present 3-D representations of small molecule ligands, and to show plausible ligand-receptor docking scenarios that can be pharmacologically tested. New sigma receptor pharmacophores useful for novel ligand design, data that show how salvinorin A binds to a kappa opioid receptor site distinct from that of classic opiates, and new epibatidine analogs with selectivity for the primary and secondary substrate pockets of the monoamine transporters will be presented. Refined molecular models such as these may serve as virtual screening tools for new addiction management lead compounds, sifting millions of compounds in a structural library to yield a handful of candidates for preclinical testing.

Monday, June 22

III. Uncontrolled Intersection: Problem Gambling and Drug Abuse
Chairs: Ken Winters and Linda Cottler

The aims of this symposium are to highlight empirical research on the intersection of problem gambling (PG) and substance use disorders (SUDs). This co-association has several implications toward enhancing our understanding of addictive disorders in general and SUDs specifically. Symposium speakers will provide an overview of the various clinical literatures that have examined the association of PG and drug dependence, with a focus on the clinical similarities of PG and dependence, evaluate the effects of level of gambling on reductions in crack use at 4 and 12 months follow-up among a group of females crack users, and summarize the first two waves of data of a large-scale longitudinal survey that is tracking gambling involvement and other addictive behaviors in a community sample of Alberta residents. A discussion of these various studies in light of their implications for our understanding of addictive disorders will follow.

IV. Drug Withdrawal, Reinforcing Effects, and Vulnerability to Relapse: New Methods and Insights
Chair: Lance McMahon

Withdrawal that emerges upon abrupt discontinuation of chronic drug use is often considered a contributing factor to relapse. Moreover, the reinforcing effects of drugs are considered to vary as a function of current level of dependence and withdrawal. One practical implication of these proposed relationships is that pharmacotherapy leading to attenuation of withdrawal (cf. nicotine) plays a role in decreasing relapse and improving treatment outcomes. This symposium provides a critical review of correlations and causal relationships among withdrawal, reinforcing effects of drugs, and vulnerability to relapse. Evidence from the pre-clinical literature assessing relationships between drug withdrawal and reinforcing effects of drugs indexed in a variety of behavioral procedures including drug self-administration will be reviewed. Critical issues to be addressed include
whether reinforcing effects vary as a function of drug withdrawal and whether pharmacologic attenuation of withdrawal is responsible for changes in self-administration and reinforcing effects of drugs. Evidence from the clinical literature assessing relationships between drug withdrawal and vulnerability to relapse and, in particular, the extent to which pharmacotherapy of withdrawal is responsible for decreased relapse and improved treatment outcomes will be presented.

V. Special Symposium Honoring the Memory of Billy Martin
Hot Topics in Cannabinoid Research: From Chemistry to the Clinic
Chair: Mary Abood

Billy R. Martin, PhD, was internationally renowned for his research on the biological basis of drug addiction, especially for his pivotal work on understanding the mechanism of action of cannabinoids. He was an eminent scholar and scientist, a beloved teacher, mentor, inventor, and humanitarian. This symposium is dedicated to his memory and is designed to highlight recent advances in cannabinoid research, from medicinal chemistry and receptor and enzyme structure and function to the clinical basis of drug addiction.

VI. Preclinical Studies of Sex Differences in Response to Cocaine in Adolescents: Are They Different from Adults?
Chairs: Cora Lee Wetherington and Jill Becker

Over the past couple of decades, there has been a growing preclinical research literature on sex differences in response to cocaine, from behavioral studies of the reinforcing, rewarding and stimulant properties of cocaine to mechanistic studies of neurotransmitter function and the role of gonadal hormones. Research on whether these sex differences in adults also occur in adolescents has been largely unaddressed until recently. Thus, this symposium focuses on this emerging research and its implications. Presentations will include data from adolescent rats demonstrating sex differences in the acquisition of cocaine self-administration and progressive ratio performance, the role of ovarian hormones in mediating cocaine's reinforcing effects in females, sex differences in acquisition and reinstatement of cocaine-seeking behavior in adolescents versus adults, sex differences in the behavioral and neurochemical effects of social and environmental enrichment in adolescent rats, and the role of gonadal steroids on dopaminergic neurotransmission across adolescence. The discussion will present a broad conceptual context within which to understand and study the various biological mechanisms that contribute to the emergence and development of sex differences.

VII. International Research Priorities for Scaling Up Effective Interventions for Drug Use and Dependence
Chairs: V. Poznyak and Sharon Walsh

This symposium, jointly organized by CPDD and WHO, aims to facilitate and support a scaling up of effective interventions for drug use and dependence in different parts of the world. In spite of the significant disease burden attributable to drug use and dependence worldwide, the coverage of effective interventions remains low, particularly in lower and middle income countries, and research evidence used to inform treatment and policy development is mainly generated in industrialized countries. Main findings from the recent work on global estimates of the number of injecting drug users, the proportion living with HIV/AIDS, and priorities for improving quality and quantity of data will be presented. The major role that intravenous drug use is playing in the HIV epidemic in the Central and Eastern European region and important areas for translational research will be discussed. Gaps in the evidence and the main questions for further research in the area of
pharmacotherapy of opioid dependence formulated in the process of developing the WHO guidelines on psychosocially assisted pharmacotherapy of opioid dependence will be addressed. In addition, future research implications of the main findings from the recent WHO multi-site international research project on effectiveness of screening and brief interventions for drug use and priorities for future international research focused on low and middle income countries will be discussed. The conclusions of the symposium will provide an important contribution to the process of agenda setting for international research to reduce the gap between the population needs and coverage of effective interventions in different parts of the world.

**Tuesday, June 23**

**VIII. This Is Your Brain on Gambling (and Drugs) … Parsing Drug and Addiction Influences by Contrasting “Behavioral” and Drug Addictions**

Chairs: Marc N. Potenza and Robert Rogers

Considerable debate exists regarding whether non-drug disorders should be considered as addictions. DSM-V committees are considering pathological gambling within an addictions framework. Pathological gambling, unlike drug dependence, is devoid of chronic drug-upon-brain-substrate effects that may complicate understanding the core cognitive and neural bases of addiction. This symposium aims to enhance the audience’s understanding of neurocognitive and neural features of addiction by comparing and contrasting pathological gambling with drug use disorders. Clinical data about drug-related behaviors of online casino gamblers and how forms of gambling (e.g., slot machines) may engage reinforcement circuits and neuromodulators implicated in substance misuse will be presented. fMRI findings will be described from gambling task studies involving individuals with substance use disorders with and without pathological gambling, implicating diminished ventromedial prefrontal cortical activation in individuals with addictions. Neurocognitive and brain imaging similarities and differences in impulsivity, cue reactivity, and reward/punishment processing in groups of individuals with pathological gambling, nicotine dependence, or alcohol dependence will be reported. Data will be reported from individuals with gambling or substance use problems in which individuals from both groups demonstrate overlapping impairments but only substance-dependent subjects demonstrate executive functioning impairment on tasks assessing working memory, suggesting a specific substance-related influence. Implications for conceptualization and categorization of addictive disorders and for treatment development will be discussed.

**IX. The Acetylcholine System as Therapeutic Target in Drug Dependence: Molecular Biology, Neurochemistry, Animal and Human Behavioral Pharmacology**

Chairs: Gerald Zernig and Richard De La Garza, II

The acetylcholine (ACh) system is involved in the acute and chronic effects produced by several drugs of abuse and appears to be an important target for medications development for drug dependence. In animal models, activation of muscarinic and nicotinic ACh receptors is necessary for the acquisition of drug (i.e., cocaine, morphine and remifentanil) seeking, whereas in chronically self-administering animals, treatment with the acetylcholinesterase inhibitor (AChEI) tacrine, which increases synaptic availability of ACh, produces the opposite effect, i.e., decreases the reinforcing effects produced by cocaine in self-administration, an effect that can also be demonstrated in the conditioned place preference paradigm. In human neuroimaging studies, control- and cocaine-addicted subjects differ with respect to muscarinic and nicotinic receptor density in limbic areas and regional cerebral blood flow in the dorsolateral prefrontal cortex, insula, amygdala, midbrain, and hippocampus following physostigmine and/or scopolamine infusion. In the human behavioral
laboratory, the AChEI rivastigmine decreases the positive subjective effects produced by administration of intravenous methamphetamine. These data serve as the first clinical evidence of the effectiveness of AChEIs as treatments for stimulant dependence.

X. Racial and Ethnic Disparities in Substance Abuse and Addiction: Native Americans and Native Hawaiians
Chairs: Rumi Kato Price and Lula A. Beatty

Health disparities research on substance abuse mostly focuses on racial and ethnic minority populations. A common misperception is that minorities use drugs more than Caucasians, but epidemiologic data do not support such a perception. Exceptions are Native populations. Large-scale national surveys suggest Native Americans are at the highest risk for substance use, abuse, and dependence among all racial groups in the U.S. Native Hawaiians report much higher levels of substance abuse than Asian subgroups. Although the NIH Roadmap aims to reshape clinical research to accelerate medical discovery and improve people’s health, wide gaps remain between biomedical research that includes race/ethnicity information and social/behavioral health disparity research aiming to reduce racial/ethnic disparities in drug abuse and associated consequences. This mini-symposium organized by the Underrepresented Populations Committee (URPOP) aims to examine common and unique risk and protective factors that would provide some answers as to why Native populations are disproportionately afflicted by substance abuse problems, and to integrate neurobiological findings in these populations into efforts to reduce health disparities.

XI. HIV Risk Prevention in the NIDA Clinical Trials Network
Chair: Raul Mandler

The NIDA Clinical Trials Network (CTN) is an invaluable venue for implementing and evaluating evidence-based interventions for HIV prevention in diverse community drug treatment programs. This diversity allows for the examination of intervention effects within important subgroups of treatment programs. In this mini-symposium, we will examine differential effects of two effective HIV prevention interventions for two major treatment programs types, outpatient psychosocial (primarily serving cocaine and/or alcohol abusers) and methadone maintenance (primarily serving heroin dependent patients). Comparison of HIV prevention intervention between these two program types has important implications for drug treatment researchers and providers. There is widespread use of both modalities throughout the U.S., and there are considerable structural differences between these types of programs. In addition, cocaine and alcohol use are more widely associated with sexual risk behavior than opioid use. Comparative intervention effects across these types of programs for the CTN Safe Sex for Men and for the CTN Safe Sex for Women protocols will be presented. Focus will be on identification of any treatment program type differences related to sexual risk behavior prior to the intervention, intervention attendance, and intervention effectiveness. Implications of these results for future HIV prevention research efforts in drug treatment settings planned for the CTN will be discussed.

Wednesday, June 24

XII. Regulating Nicotine in Tobacco Products: State of the Science and Future Policy
Chairs: Dorothy Hatsukami and Jack Henningfield

The authority to reduce the yield of nicotine to non-addicting levels is one of the provisions in the legislation that is being considered by Congress to restore regulatory oversight of tobacco products to FDA. However, the scientific basis for determining the feasibility of the “nicotine reduction”
approach is limited and the resulting population impact is unknown. In the past year, a workgroup of scientists and tobacco control experts has been meeting to discuss the current science, the scientific gaps and future research needs to bring clarity to whether or not regulating nicotine content in tobacco products is a feasible policy approach. The focus of this symposium will be to describe the most up-to-date research in this area and the key recommendations from the workgroup meetings. A regulatory policy framework for examining reduced nicotine cigarettes will be provided. Research on the impact of gradually reducing the levels of nicotine on smoking behavior, biomarkers of exposure and effect, nicotine addiction and cessation, evidence from laboratory behavioral, brain imaging, and smoking cessation studies that support the usefulness of denicotinized cigarettes as a cessation method will be presented. Animal models for determining nicotine dose thresholds for the acquisition and extinction of nicotine self-administration will also be discussed. The political and scientific challenges associated with nicotine regulation will be addressed.

XIII. Risk Management and Post-marketing Surveillance of CNS Drugs
Chair: Robert Balster

An important goal of drug regulation, including labeling and scheduling under the Controlled Substance Act, is to reduce unintended consequences. Risk management programs (RMP), including the congressionally promulgated Risk Evaluation and Mitigation Strategy (REMS) provides additional layers of control (e.g., restricted marketing, and enhanced education and post-marketing surveillance). In the late 1990s, the FDA began to require RMPs for drugs with special concerns, e.g., isotretinoin for acne, thalidomide for leprosy, tramadol approval without scheduling, transmucosal fentanyl, controlled release oxycodeone, buprenorphine for opioid dependence, and transdermal methylphenidate. Although the concept of risk management is generally supported, the science base remains weak, thus, impeding effective and appropriate risk management implementation. Drugs with abuse potential pose special challenges including the goals of reducing abuse and diversion, which become more complicated for novel chemical entities and formulations. The CPDD convened a conference in October, 2008, to explore the challenges to research and regulation raised by the increasing application of risk management to CNS drugs with known or suspected abuse potential. Approximately 100 researchers, regulators, pharmaceutical developers, and research institution representatives, discussed issues, shared perspectives, and informed the development of recommendations for research and regulation by an Expert Panel. Commissioned papers were presented by leaders in key areas relevant to the science of risk management. These papers will be updated and presented in this symposium along with the Expert Panel recommendations. The symposium has implications for drug development, and prioritization of research and research funding.

XIV. Development of Protein-Based Pharmacotherapies for Drug Addiction
Chairs: Thomas R. Kosten and C. Nora Chiang

Currently, there are no FDA-approved medications for treating cocaine and methamphetamine addiction. Recent advances in biotechnology make it feasible for the development of large protein molecules as potential pharmacotherapies for drug addiction. Unlike small molecules targeting the neural pathways and receptors involved in drug addiction, these protein therapies target the drug itself, providing alternative strategies for medications development. Newly bioengineered drug-specific metabolizing enzymes have the potential to rapidly eliminate the drug from the body and thus are promising for treating drug overdose or addiction. New innovations in technology have facilitated the development of drug-protein conjugate vaccines, which elicit antibodies of high affinity that are specifically capable of neutralizing the drug in the body and attenuating its pharmacological effects. This symposium will review the current status and future perspectives of the use of these proteins for treating drug addiction.
**SYMPOSIA**

**Thursday, June 25**

**XV. From Trials to Practice: The Implications of Inclusion and Exclusion Criteria in Clinical Trials of Pharmacotherapies to Treat Drug Dependence**

Chairs: Howard Chilcoat and Anne Andorn

Clinical trials that test the efficacy of medications to treat drug dependence include numerous inclusion and exclusion criteria designed to maximize the detection of an efficacy signal as well as minimizing safety concerns. A negative consequence of these criteria is that the characteristics of clinical trials participants can be very different from those with drug dependence in the general population. Consequently, the efficacy of pharmacotherapies to treat drug dependence in individuals who would have been excluded from clinical trials can differ from results obtained in clinical trials. In addition, restrictive clinical trial criteria can result in difficulties in subject recruitment and can influence marketability of medications. This symposium will 1) assess empirically the impact of inclusion/exclusion criteria on generalizability of clinical trial results using data both from clinical trial and epidemiologic samples; 2) evaluate the utility of widely used inclusion/exclusion criteria; 3) address the implications of clinical trial results for public health and their import for research conducted by government, academic institutions, and industry. Contrasts between clinical trial and population samples and assessment of impact of clinical trial criteria will be presented for alcohol and nicotine dependence. The utility of clinical trial criteria for legal and illegal drug dependence and the impact of restrictive criteria on NIDA-sponsored research will be examined. A discussion will focus on the importance of the findings for research and regulatory and commercial implications.

**XVI. Preclinical Research on Stress and Addiction**

Chairs: John R. Mantsch and Klaus A. Miczek

Anecdotal reports as well as epidemiological and basic research findings suggest that stress plays a role in addiction. However, the mechanisms through which stressful stimuli regulate addiction-related processes and behaviors are not fully understood. This symposium will highlight current preclinical research findings investigating the relationship between stress and addiction. In addition to examining the neurobiological systems that may contribute to acute stressor-induced relapse (e.g., corticotropin releasing factor, dynorphins/kappa opioid receptors, arginine vasopressin, peptide YY3-36, orexins/hypocretins), the symposium will explore mechanisms through which repeated stress can predispose individuals to the effects of abused drugs and the processes through which repeated drug exposure can alter stressor-responsiveness to promote further drug use during periods of stress.

**XVII. Cocaine Cocktails: The Impact of Concurrent Drug Use on Treatment of Cocaine Dependence**

Chairs: Joy M. Schmitz and Alison Oliveto

Polysubstance use complicates the clinical presentation of cocaine dependence. Understanding clinical and neurobiological linkages between cocaine and other drugs of abuse are advancing the development of more targeted treatment approaches. This symposium will bring together new ideas toward broadening the scope of cocaine clinical trials by addressing concurrent patterns of drug use. Two recently completed clinical trials of pharmacotherapies for dual cocaine/alcohol dependence will provide evidence of efficacy, while identifying modifiers of outcome, including...
baseline and early drug use, gender, genotype, and medication compliance. Issues related to pharmacological approaches for reducing cocaine use in non opioid-dependent and opioid-dependent individuals will be discussed, using results of several disulfiram clinical trials to highlight differences in efficacy depending upon co-morbid opioid dependence status. In view of the fact that marijuana is the most commonly used illicit substance among cocaine abusers, yet arguably the least studied in medication development research, outcome data across a series of cocaine clinical trials will show how response to treatment differs according to level of concurrent cannabis use.

XVIII. Nicotinic Cholinergic Mechanisms in Drug Dependence: Receptor Subtypes and Ligands
Chairs: William A. Corrigall and David Shurtleff

This symposium will describe novel aspects of nicotinic cholinergic mechanisms at the receptor level. For nicotine dependence itself, the association with nicotinic cholinergic receptors (nAChRs) is obvious, and the alpha4beta2 nAChR subtype has always been considered critical. While it remains an important subtype in this disorder and other nicotinic mechanisms, recent studies have shown that accessory subunits in this receptor subtype alter its function markedly, with the sensitivity of (alpha4beta2)2 receptors being highly dependent on the identity of the additional subunit in the receptor. In addition, it has recently been demonstrated that the alpha5 subunit influences dependence and disease risk, in that a common variant in the nAChR cluster on human chromosome 15q24 is associated with amount smoked, addiction and the prevalence of cancer. Still other nAChR subtypes are linked to drug dependence because they play a role in dopamine release, a cardinal feature of dependence, or because they are located within brain regions that have been linked to dependence mechanisms as the discovery of the relevant disease circuitry has been elaborated. With the greater delineation of subtypes of nAChRs and their roles in disease states, including dependence and mental health, greater emphasis is being placed on the development of novel ligands for use as research tools and as the basis for medications, using approaches such as structural modeling of the extracellular domain of the receptor and genetically modified organisms.
Accumulating evidence suggests that changes in dopaminergically regulated reward systems resulting from chronic drug use may contribute to maladaptive parenting (e.g., parental neglect and compromised sensitivity). In the past few years, as psychosocial and neurobiological implications of chronic drug use for parenting become increasingly clear, the development of effective treatments for parents has become increasingly paramount. In this workshop, four experts on psychosocial treatment development and evaluation will report preliminary findings from ongoing trials testing the efficacy of four innovative interventions for substance-using parents. New findings from three controlled clinical trials testing (1) a contingency-management and relational therapy program for fathers, (2) a sobriety program for couples, and (3) an attachment-based program for mothers of infants and toddlers and one pilot study testing the preliminary efficacy of a contingency-management and interaction coaching program for mothers will be reported. Workshop participants can expect to develop a better understanding of the following:

- Four conceptually diverse approaches to intervention with substance-using parents
- The potential of each approach to improve parental functioning, psychiatric status, substance use, and child psychosocial adjustment
- New strategies for implementing clinical trials with substance-using parents and children
- Implications of trial results for future intervention development and evaluation

**II. Fit to Be Tied: Abuse Potential of Anti-epileptics?**
Chairs: Edward M. Sellers and Jack E. Henningfield

A few traditional anti-epileptic drugs are scheduled under the Controlled Substances Act (e.g., phenobarbital, benzodiazepines) many others are not. While many older drugs with sedative and other "abuse-related adverse events" may not have been as carefully evaluated pre-approval for their abuse liability, there is little evidence for their abuse. This has resulted in an assumption that anti-epileptic drugs have little or no abuse liability. New anti-epileptics with novel mechanisms of action may have a variety of clinical adverse events (e.g., euphoria, sedation, drunkenness, dizziness) suggesting abuse potential. In human abuse liability studies they may produce "liking at the moment", "high" and other subjective reports which could lead to scheduling. Recent studies with anti-epileptics raise some regulatory and scientific challenges. For example, levetiracetam in an initial human abuse liability study produced moderate "high" but no next day “liking” (Feltner et al, CPDD 2006). The aim of this workshop is to review the medical need for newer anti-epileptics and the regulatory perspective on such agents; to present and discuss clinical and human abuse liability data from representative newer anti-epileptics e.g., levetiracetam, lacosamide and retigabine; to discuss the potential that different factors above and beyond those within the regulatory framework are important from a scientific and public health perspective with anti-epileptics.

**III. What’s New at NIDA and NIH: A Peek into the Black Box**
Chair: Gerald McLaughlin

This workshop is intended to provide an opportunity for participants to learn about new policies and procedures at NIH and NIDA that are relevant to them. Topics will include new policies resulting from the NIH lengthy examination of the peer review process, changes in the review process at NIDA and the Center for Scientific Review (CSR), tips on how to write a good grant application, and ways to get help on application preparation. Other topics and questions of interest to the
WORKSHOPS

audience will be addressed. This is very much an interactive, audience-directed activity. Although we will have a list of topics of interest, as is always the case with these presentations, audience members may ask about the budget, recent Advisory Council Reports, new research directions at NIDA, various NIH mechanisms, or any other subject.

IV. Leadership in the Making: Impact and Insights from Leadership Development Programs for Leaders of Addiction Services
Chairs: Anne Helene Skinstad and Pamela Waters

Leadership training and preparation is critical for the future of addiction service agencies. Historically, leaders have been promoted from clinical positions to leadership roles, with little opportunity for leadership education or development. With many changes facing this profession, such as the “graying” of the workforce, the need for strong leaders has become increasingly important. The presenters in this session collectively work to foster new leadership by organizing activities through which leadership can naturally develop. This workshop showcases leadership development efforts both within and outside the ATTC network, with specific focus on gender and cultural differences.

Monday, June 22

V. 15th Annual Contingency Management Working Group
Chairs: Stacey C. Sigmon and Kelly Dunn

The Annual Meeting of the Contingency Management Working Group represents an opportunity each year at CPDD for the dissemination and discussion of current research in the area of contingency management interventions for treating drug abuse. Contingency management procedures have been consistently demonstrated to be efficacious in reducing use of a wide range of drugs across a variety of populations, and the behavioral approach represents one of the most effective interventions for the treatment substance abuse. At the 15th Annual Meeting, junior and senior researchers will present preliminary data from ongoing studies. Participants and topics will be chosen during the spring of 2009 in order to capture the most hot-off-the-press data in contingency management research and clinical applications for presentation at our annual working group.

VI. Evaluating the Abuse Potential of Novel Compounds and Abuse-Resistant Formulations
Chair: Michael A. Nader

Clinical and preclinical research can be designed to evaluate the abuse liability of novel drugs thus informing the DEA as to the appropriate scheduling of compounds having abuse potential. DEA seizures show growing evidence for the abuse of new substances that are analogues of Schedule I drugs. DEA policy on scheduling substances and various formulations, forensic and epidemiological data on these seized compounds will be described, and the need for additional basic science on the mechanisms leading to abuse and the consequences of drug exposure will be addressed. NIDA has several avenues that can be explored in order to obtain the necessary data on mechanisms of abuse liability. Issues related to animal and human research involving assessment of abuse liability of novel compounds and abuse-resistant formulations will be discussed. In the end, this workshop is intended to formulate a viable approach and timeline to work within government and academic mechanisms to scientifically address the schedule and control issues of emerging drugs of abuse.
Studies indicating that DSM-IV’s criteria for “Abuse” and “Dependence” do not form separate factors will be discussed, as will the Workgroup’s consideration of combining the two diagnoses into one diagnosis, graded, e.g., as mild, moderate, or severe, probably by symptom count. Potential advantages of, and problems with, this proposal will be addressed. A proposal to include Cannabis Withdrawal Disorder and “withdrawal” as a criterion for Cannabis Dependence in the DSM-V will also be reviewed. The implications of this change on diagnostic, clinical, and epidemiological studies will be discussed. Additional issues related to diagnosis of other withdrawal and dependence disorders that became apparent during this process will be raised for discussion. A proposal to establish a category of “Addictive Disorders” in DSM-V will also be considered. Sub-categories would be “substance use disorders” and “non-substance addictions”, each classified as mild, moderate or severe. “Abuse” and “Dependence” would not be used as they are now. “Dependence” would return to its original, single meaning: the clearly defined and normal “neuroadaptive” response to medications. The workshop will further include a discussion of incorporating indicators of heavy drinking patterns as a possible diagnostic criterion for alcohol use disorders for the DSMV in the US and in other populations. New data will be presented for emergency room patients in Argentina, Mexico, Poland and the United States showing DSM-IV alcohol use disorders with and without indicators of heavy drinking patterns.

VIII. Four Practical Interventions to Make Outpatient Treatment Attractive and Accountable – Translational Research in the Real World
Chairs: A. Thomas McLellan and David Festinger

With increasing acceptance that many cases of addiction will require chronic, continuing care, the ability to provide attractive, effective outpatient treatment becomes particularly important. Because of NIDA-funded research, there are now more effective treatment components available for outpatient treatment than ever before. But the reality across this country is that very few of these evidence-based components of care are being used. Outpatient treatment looks much as it did in 1970; and most importantly, the modal treatment episode in most outpatient programs is only 1 – 2 visits, less than 12% remain for even two months. This workshop will describe and discuss the translational research leading to system implementation of evidence-based treatment interventions to improve four important aspects of outpatient addiction treatment: Initiation, Transition, Supervision/Adaptation, Monitoring. Discussion will include describing principles of translation and human engineering necessary to adapt evidence based clinical practices to suit contemporary outpatient treatment systems.

NIDA International Research Posters
Chair: Steven W. Gust

This workshop will be similar to the ones conducted previously by the NIDA International Program, consisting of a poster session presenting drug abuse research being conducted outside of the United States. The primary goal is to provide a venue for CPDD members to meet, exchange ideas, and explore areas of mutual scientific interest with potential collaborators from other countries. Approximately 150 investigators will present research projects from around the globe, and NIDA divisions, offices, and programs will present posters outlining their international priorities and activities. This popular NIDA Workshop at CPDD is successful for both NIDA and CPDD; its success is reflected in substantial increases in participation and positive feedback on evaluation forms. Forging new collaborations among U.S. and foreign investigators is one of the primary goals of the NIDA International Program.
WORKSHOPS

Tuesday, June 23

**IX. Career Development: A Perspective from Junior and Senior Researchers**
Chairs: Gerald McLaughlin, Scott Chen, Jose Ruiz, and Eliane Lazar-Wesley

Creating a career involves a series of decisions, decisions that often are made with limited information or assistance. The purpose of this workshop is to provide a forum for thinking more creatively and systematically about one's career decisions by inviting both junior and more senior scientists to reflect on their own career choices and experiences, as well as those of their colleagues, and encouraging substantial audience participation. Topics will include choosing a mentor; networking effectively at a professional meeting; moving to academia, industry or government positions; handling job interviews.

**X. Mathematical and Simulation Modeling in Biological and Epidemiological Studies of Drug Addiction**
Chairs: Georgiy Bobashev and Boris Gurkin

This is the fourth Modeling Workshop in a series of very successful CPDD workshops that started in 2006. The purpose of the workshop is to showcase the spectrum of recent modeling approaches and to discuss their application to solve real-world problems in drug abuse. The workshop aims at fostering dialogue and collaborations between the substantive and computational scientists working in both epidemiological and biological areas of substance abuse and addiction. In epidemiology, modeling allows scientists to simulate the consequences of various intervention and prevention scenarios, while in biology modeling allows to describe and simulate complex neurophysiological processes.

**XI. Communicating the Risks of Opioid Analgesics: How Can We Do Better?**
Chairs: Michael Wolf and Meredith Y. Smith

The misuse and abuse of prescription opioid analgesics is a significant public health challenge in the United States today. Successful efforts to mitigate this problem will depend, ultimately, on effective communication concerning the optimal use of opioid medications and the associated risks of overdose, misuse, abuse and diversion. Among the key constituencies to be targeted for such communication are pain patients, healthcare prescribers, and the general public. To date, many of the traditional risk communication vehicles have not been consistently successful in reducing risks, especially those associated with abuse and diversion. New Internet-based tools are increasingly being employed to communicate risk information associated with opioid analgesic use yet little data are available concerning the impact of these virtual approaches on patient and provider behavior. The specific aims of this workshop are 1) To identify methods, strategies and tools that can improve the consistency and effectiveness of communication regarding the benefits and risks associated with opioid analgesics, including ways to enhance traditional communication vehicles; 2) To discuss evaluating the effectiveness of such approaches; and 3) To highlight research that needs to be conducted in this area.
Since 2002, The Society of Adolescent Substance Abuse Treatment Effectiveness (SASATE) has met at CPDD. This year’s SASATE workshop focuses on how recent advances in research are impacting the dissemination of evidence-based practices. Presentations will include a recently completed meta-analysis of the effects of adolescent substance abuse treatment to examine the relationship between measures of the quality with which treatment is implemented and the magnitude of effects on substance use that result; NIDA-funded research testing therapist training protocols; Phase IV replication of MET/CBT5 in 36 sites and how the results varied by site, client characteristics, and implementation; a CSAT-funded project to replicate A-CRA in 32 sites and related NIAAA-funded implementation research. The session ends with a brief business meeting.
The following organizations have generously supported the work of the
College on Problems of Drug Dependence during the past year:

Abbott Labs
Acologic, Inc.
Astra Zeneca
Bristol Myers Squibb
CRS Associates
CSAT  (Center for Substance Abuse Treatment)
Endo
Glaxo Smith Kline
Inflexxion
Javelin
Jazz Pharmaceuticals
Johnson & Johnson
NIDA (National Institute on Drug Abuse)
Pfizer Inc.
Pinney Associates, Inc.
Purdue Pharmaceuticals
Reckitt Benckiser Pharmaceuticals, Inc.
SAMHSA  (Western Consultants)
Sanofi-Aventis, US
Shire US Inc.
Society for Research on Nicotine and Tobacco