

# Bridging the Gap in Behavioral Health Services for Latinos

September 26-29, 2012 🌿 The Westin San Diego 🌿 San Diego, CA

## Mission Statement

The National Hispanic Science Network on Drug Abuse is dedicated to improving the health equity of Hispanics by increasing the amount, quality and dissemination of interdisciplinary translational research; and fostering the development and advancement of Hispanic scientists to promote future leaders.

## National Steering Committee

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Director, Alcohol & Drug Abuse Center  
Louisiana State University Health Sciences Center*

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*Professor, Clinical Internal Medicine  
Director, Center for Reducing Health Disparities (CRHD)  
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*Director, Center for Multicultural Mental Health Research, Cambridge Health Alliance  
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*Chief Director  
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*Associate Dean of Global Health Sciences  
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### **Avelardo Valdez, Ph.D.**

*Professor  
School of Social Work  
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### **Alice Cepeda, Ph.D.**

*Chair, Early Career Leadership Subcommittee  
Assistant Professor, School of Social Work  
University of Southern California*

## Welcome from the Conference Chairs

On behalf of the Executive and Steering Committees of the NHSN and the Conference Planning Subcommittee, we welcome you to the 12th Annual International Conference of the NHSN. This year's conference, **Bridging the Gap in Behavioral Health Services for Latinos**, focuses on the integration of research perspectives that will guide translational research from bench to bedside, especially in the areas of prevention and treatment strategies of relevance for Latino populations. More specifically, the conference will include presentations on Drug and Alcohol Addiction, HIV, Cardiovascular Diseases, Cancer, Mental Health, Obesity, and other chronic health issues.

One major theme of this conference will be on the unique challenges presented by dealing with subpopulations that differ on genetic and environmental backgrounds as well as co-morbid disease states. Addressing these issues in this forum will have implications not only for Latinos, but also for other minority populations and communities facing adversity as will be discussed in our Minority Workgroup Panel. The first panel at this year's meeting will address challenges in delivery of care, evaluation of care, and impact of co-morbidities in drug and alcohol abuse populations. The second panel will address challenges in bench-to-bedside drug development, current status of promising potential therapeutics, and challenges in treatment and implementation. The final panel will discuss challenges in transforming specialty medical services into care for drug-dependent clients, current evidence-based psychosocial, social cognitive, and pharmacologic therapies, and ongoing programs for evaluation and improvement of care in drug abuse populations.

The program also includes Career Development activities for young scientists such as a Pre-Conference Methodology Workshop on social network analysis, an Early Career Social Networking event, a Young Investigator Panel, and a Speed Mentoring Luncheon. We are excited about the distinguished panelists and presenters on the program and we encourage attendees to engage them in constructive and incisive conversations. We expect four days of stimulating and interactive scientific discussion, as well as strong networking and wholesome fun – the attributes that characterize our NHSN conferences.

## Pre-Conference Methodology Session Wednesday 26 September 2012

12:30 PM–1:00 PM PICKUP BOX LUNCH (Crystal Foyer) (Registration required)

1:00 PM–5:30 PM INTRODUCTION TO NETWORK ANALYSIS: CONCEPTS, METHODS AND APPLICATIONS  
(Abstract on p.16) (Crystal)

INTRODUCTION **C. Hendricks Brown, Ph.D.**, *Professor, Department of Epidemiology & Public Health, University of Miami Miller School of Medicine (chbrown@med.miami.edu)*

PRESENTERS **Janet Okamoto, Ph.D.**, *Post Doctoral Fellow, Behavioral Research Program Division of Cancer Control and Population Sciences, National Cancer Institute (janet.okamoto@nih.gov)*

# Thursday 27 September 2012

7:00 AM–8:30 AM REGISTRATION and CONTINENTAL BREAKFAST (Crystal Foyer)

8:30 AM–9:00 AM WELCOMING REMARKS (Crystal Ballroom)

**Patricia E. Molina, M.D., Ph.D., Chair, NHSN**

**Margarita Alegría, Ph.D., 2012 NHSN Scientific Conference Co-Chair**

**Nicholas Gilpin, Ph.D., 2012 NHSN Scientific Conference Co-Chair**

9:00 AM–11:00 AM USING RESEARCH AS THE COMPASS TO BRIDGE THE GAP IN BEHAVIORAL HEALTH SERVICES FOR MINORITIES (Abstracts on p.16) (Crystal)

CHAIR **Margarita Alegría, Ph.D., Director, Center for Multicultural Mental Health Research, Cambridge Health Alliance; Professor, Harvard Medical School (malegría@charesearch.org)**

**Sergio Aguilar-Gaxiola, M.D., Ph.D., Professor of Clinical Internal Medicine & Director Center for Reducing Health Disparities (CRHD), University of California, Davis (sergio.aguilar-gaxiola@ucdmc.ucdavis.edu)**

PRESENTERS **Margarita Alegría, Ph.D.**  
“How our Health Care System Perpetuates Disparities in Behavioral Health Services for Ethnic and Racial Minorities”

**Sergio Aguilar-Gaxiola, M.D., Ph.D.**  
“Addressing the SUD Treatment Gap through Advocacy and Legislation”

**Glorisa Canino, Ph.D., Director, Behavioral Sciences Research Institute, University of Puerto Rico Medical Sciences Campus (glorisa.canino@upr.edu)**

“Comparing the Prevalence of DSM-IV Substance Use Disorders Among Latino Subgroups Across Different National Surveys by Country of Origin, Migration Status and US Birth: Methodological Considerations and an Agenda for Future Research”

11:00 AM–12:00 PM GRANT APPLICATION PEER-REVIEW (Abstract on p.16) (Crystal)

PRESENTERS **José Ruiz, Ph.D., Scientific Review Officer, Office of Extramural Affairs, NIDA/NIH (ruizjf@nida.nih.gov)**  
“What is the Role of a Reviewer?”

**Joseph Frascella, Ph.D., Director, Division of Clinical Neuroscience and Behavior, NIDA/NIH (jfrascel@nida.nih.gov)**

“Why is it Important to Be a Reviewer?”

**Patricia E. Molina, M.D., Ph.D., Richard Ashman Professor & Head, Department of Physiology, Director, Alcohol & Drug Abuse Center of Excellence, Louisiana State University Health Sciences Center (pmolin@lsuhsc.edu)**

“How Can I Position Myself to Become a Reviewer?”

12:00 PM–2:00 PM SPEED MENTORING AND LUNCHEON (Crystal Foyer followed by Poolside Buffet)  
Prior registration required

2:00 PM–3:45 PM TRAJECTORIES OF DRUG USE AMONG MINORITY POPULATIONS (Abstracts on p.17-18) (Crystal)

CHAIR **Yonette F. Thomas, Ph.D., Associate Vice President for Research Compliance, Howard University (ythomas@howard.edu)**

PRESENTERS **Kristine Molina, Ph.D., Post Doctoral Research Fellow, Behavioral Medicine Research Center, University of Miami (kmolina@psy.miami.edu)**  
“Neighborhood Context and Substance Use Disorders: A Comparative Analysis of Racial and Ethnic Groups in the United States”

**Rumi Price, Ph.D., Research Professor, Department of Psychiatry, Washington University in St. Louis, School of Medicine (price@rkp.wustl.edu)**

“Role of Mixed Race (Admixture) in Minority Substance Use and Abuse”

**Dale Walker, Ph.D., Professor of Psychiatry, Professor of Public Health and Preventive Medicine; Director, One Sky National Resource Center for American Indian/Alaska Native Substance Abuse Services, Director, Center for American Indian Health Education and Research (walkerrd@ohsu.edu)**  
“Connections and Collaborations: The Role of Mentoring And Professional Networks in Career Success”

**Ann Kathleen Burlew, Ph.D.**, *Professor of Psychology, University of Cincinnati (rkburlew@juno.com)*  
**“Does Motivational Enhancement Therapy Benefit Black Substance Users? Recent findings”**

**Daniel Sarpong, Ph.D.**, *Director, Co-PI and Senior Biostatistician, Jackson State University, Jackson Heart Study Coordinating Center (dsarpong@jsums.edu)*  
**“Translational Research in Substance Abuse in Ethnic Minorities: Methodologies and Implications”**

3:45 PM–4:00 PM TRANSITION

4:00 PM–6:00 PM BREAKOUT SESSION 1

SESSION ONE International Research (Abstract on p.18) (Ivory)

CHAIR **Antonio Cepeda-Benito, Ph.D.**, *Dean, College of Arts and Sciences, University of Vermont (acepeda@uvm.edu)*

**Ian Mendez, Ph.D.**, *Post Doctoral Scholar, University of California, Los Angeles (imendez@ucla.edu)*

SESSION TWO The Role of Brain Stress Peptides in Drug Addiction and Anxiety Disorders (Abstracts on p.18-19) (Opal)

CHAIR **Annie Whitaker, Ph.D.**, *T32 Fellow, CARC and the Department of Physiology, Louisiana State University Health Science Center (awhita@lsuhsc.edu)*

PRESENTERS **Montserrat Navarro-Thiele, Ph.D.**, *Assistant Research Professor, Department of Psychology, University of North Carolina (mthiele@email.unc.edu)*

“Interaction Between Melanocortin and Opioid Neuropeptides in the Modulation of Binge-Like Ethanol Drinking in C57BL/6J Mice”

**Marcelo F. Lopez, Ph.D.**, *Assistant Research Professor, Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina (lopezm@musc.edu)*

“Chronic Intermittent Ethanol Exposure Induces High Levels of Voluntary Ethanol Intake and Changes in CRF Systems in C57BL/6J Mice”

**Eric Zorrilla, Ph.D.**, *Associate Professor, The Scripps Research Institute (ezorrilla@scripps.edu)*

“Anxiety-Like Behavior and Changes in CRF and NPY Systems of Rats During Withdrawal from Chronic Intermittent Ethanol Exposure: Timing is Everything”

**Laura O’Dell, Ph.D.**, *Associate Professor, Department of Psychology, University of Texas at El Paso (lodell@utep.edu)*

“The Rewarding Effects of Alcohol are Enhanced in Female Versus Male Rats”

SESSION THREE Bridging the Gap between Policymakers and Researchers to Reduce Behavioral Health Services Disparities (Abstracts on p.19-20) (Crystal 1)

CHAIR **Benjamin Lê Cook, Ph.D., MPH**, *Senior Scientist, Center for Multicultural Mental Health Research, Cambridge Health Alliance, Assistant Professor, Department of Psychiatry, Harvard Medical School (bcook@charesearch.org)*

PRESENTERS **Benjamin Lê Cook, Ph.D., MPH**,  
 “Estimating the Monetary Value of Reducing Behavioral Health Care Disparities”

**Margarita Alegria, Ph.D.**, *Director, Center for Multicultural Mental Health Research, Cambridge Health Alliance, Professor of Psychology, Department of Psychiatry, Harvard Medical School (malegria@charesearch.org)*

“Policymakers Views on State-by-State Behavioral Health Care Disparities Report Cards”

**Nicholas Carson, M.D., FRCPC**, *Instructor, Department of Psychiatry, Harvard Medical School Researcher, Center for Multicultural Mental Health Research, Cambridge Health Alliance (ncarson@charesearch.org)*

“Racial/Ethnic Differences in the Quality of Outpatient Behavioral Health Treatment for Youth Following Inpatient and Emergency Care”

**Brendan Saloner, Ph.D.**, *Robert Wood Johnson Foundation Health and Society Scholar, University of Pennsylvania (bsaloner@gmail.com)*

“Explaining Racial/Ethnic Disparities in Adolescent Substance Abuse Treatment Completion in the United States: A Decomposition Analysis”

SESSION FOUR Implementation and Impact of Organizational Cultural Competence in Substance Abuse Treatment for Latinos (Abstracts on p.20-21) (Crystal 2)

CHAIR **Erick Guerrero, Ph.D.**, *Assistant Professor, USC School of Social Work*  
(erickgue@usc.edu)

DISCUSSANT **William Vega, Ph.D.**, *Provost Professor, USC School of Social Work* (williaav@usc.edu)

PRESENTERS **Tina Kim, Ph.D.**, *Research Associate, Los Angeles County- Department of Public Health, Substance Abuse Prevention and Control* (tkim@ph.lacounty.gov )  
“Cultural Competence in Outpatient Substance Abuse Treatment: Measurement and Relationship to Wait Time and Retention”

**Erick Guerrero, Ph.D.**  
“The Role of Leadership and Readiness for Change in the Implementation of Cultural Competence in Community-Based Substance Abuse Treatment”

**Michael Campos, Ph.D.**, *Program Researcher, UCLA Gambling Studies Program*  
(MDCampos@mednet.ucla.edu)  
“Cultural and Linguistic Competence: Program Impact on Latinos’ Completion of Mandated Substance Abuse Treatment “

SESSION FIVE Basic and Clinical Evidence of Biomedical Consequences of Alcohol, and Drugs of Abuse in HIV/AIDS (Abstracts on p.21-23) (Topaz)

CHAIR **Maria Jose Miguez, M.D., Ph.D.**, *Professor, School of Integrated Sciences and Humanity, Florida International University* (mjmiguez@fiu.edu)

PRESENTERS **Patricia E. Molina, M.D., Ph.D.**, *Chair, NHSN, Richard Ashman Professor & Head, Department of Physiology, Director, Alcohol & Drug Abuse Center of Excellence, Louisiana State University Health Sciences Center* (pmolin@lsuhsc.edu)  
“Alcohol, Drugs of Abuse & HIV/AIDS: Beyond Risk Factors”

**Sulie Chang, Ph.D.**, *Professor and Director of Institute of NeuroImmune Pharmacology, Seton Hall University* (sulie.chang@shu.edu)  
“Methamphetamine Induced Neuronal Plasticity in HIV-1 Transgenic Rats: From Molecules to Behavior”

**Linda Chang, M.D.**, *Professor of Medicine, Program Director, Neuroscience and MR Research, Department of Medicine, John A. Burns School of Medicine, University of Hawaii* (lchang@hawaii.edu)  
“Combined and Independent Effects of Stimulants and HIV on the Brain”

**Maria Jose Miguez, M.D., Ph.D.**  
“Cognitive Function in Hispanics, African Americans and Caucasians receiving HAART: Are Inequalities Associated with Biological Differences?”

**Michael Copenhaver, Ph.D.**, *Associate Professor, Department of Allied Health Sciences & Department of Psychology, & Center for Health, Intervention, and Prevention (CHIP), University of Connecticut* (michael.copenhaver@uconn.edu)  
“Testing an Adapted Evidence-Based HIV Prevention Intervention in a Clinical Setting”

**Fátima A. Muñoz, M.D., MPH**, *Post Doctoral Fellow, Division of Global Public Health, Department of Medicine, School of Medicine, University of California, San Diego* (famunoz@ucsd.edu)  
“Hispanic Injection Drug Users Living in the U.S.-Mexico Border Region have Higher Perceived Risk of HIV/AIDS than Non-Hispanics”

7:00 PM–10:00 PM EARLY CAREER MIXER - YARDHOUSE  
Information available at registration table

# Friday 28 September 2012

7:30 AM–5:00 PM REGISTRATION

8:00 AM–9:30 AM CONTINENTAL BREAKFAST AND POSTER SESSION 1 (Crystal Foyer)  
Posters numbered 1-25 pp. 34-41

9:30 AM–11:45 AM NEW INVESTIGATORS IN DRUG ABUSE RESEARCH (Abstracts on p.23-25) (Crystal)

CHAIR **Alice Cepeda, Ph.D.**, *Chair, Early Career Leadership Subcommittee, Assistant Professor, School of Social Work, University of Southern California (alicecep@usc.edu)*

PRESENTERS **Erika Perez**, *Doctoral Candidate, Department of Neuroscience, Baylor College of Medicine (eeperez@bcm.edu)*

**“ $\alpha$ 5-Containing Nicotinic Receptors Affect the Manifestations of Alcohol Withdrawal”**

**Arturo R. Zavala, Ph.D.**, *Assistant Professor, California State University, Long Beach (arturo.zavala@csulb.edu)*

**“Early Methylphenidate Exposure (Postnatal Days 11-20) Shifts Adolescent Nicotine-Induced Conditioned Preference in Male and Female Rats”**

**Kaliris Y. Salas-Ramirez, Ph.D.**, *Assistant Medical Professor, Sophie Davis School of Biomedical Education, CUNY Medical School (ksalasram@ccny.cuny.edu)*

**“The Effects of Prenatal Cocaine on Adult Cognition, Spine Density and Neurogenesis”**

**Meghan Althoff, MPH**, *Doctoral Student, Tulane University School of Public Health & Tropical Medicine, Department of Epidemiology, Tulane University School of Medicine (malthoff@tulane.edu)*

**“Patterns and Predictors of Substance Use among Latino Migrant Men in a New Receiving Community”**

**Monica D. Ulibarri, Ph.D.**, *Assistant Professor, University of California, San Diego (mulibbari@ucsd.edu)*

**“Substance Use Implications for Sexual Abuse Experiences Among a Community Sample of Latinas”**

**Maria de Lourdes Gutierrez Lopez**, *Graduate Student, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz (wodahs@imp.edu.mx) (Presentation in Spanish)*

**“Who are the Methamphetamine Users in Mexico?”**

11:45 AM–1:30 PM NATIONAL NETWORK MEMBERSHIP MEETING AND LUNCHEON (Crystal Ballroom)

CHAIR **Alice Cepeda, Ph.D.**, *Chair, Early Career Leadership Subcommittee, Assistant Professor, School of Social Work, University of Southern California (alicecep@usc.edu)*

1:30 PM–3:30 PM PHARMACOTHERAPIES FOR ADDICTION: STATUS UPDATE, STRATEGIES & CHALLENGES (Abstracts on p.25-26) (Crystal)

CO-CHAIRS **Nicholas Gilpin, Ph.D.**, *2012 NHSN Scientific Conference Co-Chair, Assistant Professor, Physiology, Louisiana State University Health Sciences Center (ngilpi@lsuhsc.edu)*

**Diana Martínez, M.D.**, *Associate Professor, Department of Psychiatry, Columbia University (dm437@columbia.edu)*

PRESENTER **George Koob, Ph.D.**, *Professor and Chair, Committee on the Neurobiology of Addictive Disorders, The Scripps Research Institute, La Jolla, CA (gkoob@scripps.edu)*

**“Novel Targets for Treatment From the Dark Side of Addiction: Focus on the Brain Stress Systems: Dynorphin and CRF”**

**Richard De La Garza, Ph.D.**, *Associate Professor, Department of Psychiatry, Baylor College of Medicine (rg12@bcm.edu)*

**“Bench to Bedside - Following the Trail of Two Medications for Stimulant Dependence”**

**Steven Shoptaw, Ph.D.**, *Professor, Department of Family Medicine and Professor in Psychiatry and Biobehavioral Sciences at UCLA (sshoptaw@mednet.ucla.edu)*

**“Translation from Pre-Clinical to Phase I Clinical Studies in Methamphetamine Medication Development: The Case for Ibudilast”**

3:30 PM–4:00 PM TRANSITION & NETWORKING

4:00 PM–6:00 PM BREAKOUT SESSION 2

SESSION SIX Basic Science Datablitz (Abstract on p.26) (Topaz)

**CHAIRS** **Keith Trujillo, Ph.D.**, Professor, Department of Psychology; Director, Office for Biomedical Research and Training California State University, San Marcos ([keith@csusm.edu](mailto:keith@csusm.edu))

**Angelica Rocha, Ph.D.**, Assistant Director for Student Training, Office for Training, Research and Education in the Sciences, California State University San Marcos ([arocha@csusm.edu](mailto:arocha@csusm.edu))

SESSION SEVEN Bridging the Gap: Social Contextual Factors, Stress Processes, and Drug Abuse in Mexican Origin Families (Abstracts on p.26-27) (Opal)

**CHAIR** **Charles R. Martinez, Jr., Ph.D.**, Center for Equity Promotion, College of Education, University of Oregon ([charlesm@uoregon.edu](mailto:charlesm@uoregon.edu))

**PRESENTER** **Charles R. Martinez, Jr., Ph.D.**

“Social Contextual Influences of Acculturation Factors on Parent and Adolescent Behavioral Health Outcomes Among Immigrant Latino Families”

**Rebecca White, Ph.D., MPH**, Assistant Professor, School of Social & Family Dynamics, Arizona State University ([Rebecca.White@asu.edu](mailto:Rebecca.White@asu.edu))

“Neighborhood Context and Mexican–American Adolescent’s Mental Health and Risk of Drug and Alcohol Use”

**Jennifer A. Kam, Ph.D.**, Assistant Professor, Department of Communications, University of Illinois at Urbana-Champaign ([jakam@illinois.edu](mailto:jakam@illinois.edu))

“Comforting Messages that Moderate Perceived Ethnic/Racial Discrimination’s Associations with Mexican-Heritage Youth’s School”

SESSION EIGHT Measuring the Impact of Migration on Physical and Mental Health Outcomes (Abstracts on p.27-28) (Diamond 1)

**CHAIR** **Steffanie A. Strathdee, Ph.D.**, Harold Simon Professor, Associate Dean of Global Health Sciences, Chief, Division of Global Public Health, Co-Director, UC Global Health Institute’s Center of Expertise on Migration and Health, University of California San Diego School of Medicine ([sstrathdee@ucsd.edu](mailto:sstrathdee@ucsd.edu))

**Michael A. Rodríguez, M.D., MPH**, Professor and Vice Chair of Research, Co-Director, UC Global Health Institute’s Center of Expertise on Migration and Health, UCLA Department of Family Medicine, ([MRodriguez@mednet.ucla.edu](mailto:MRodriguez@mednet.ucla.edu))

**PRESENTERS** **Miguel Pinedo**, Graduate Student, Division of Global Public Health, Department of Medicine, University of California San Diego ([mpinedob@ucsd.edu](mailto:mpinedob@ucsd.edu))

“Alcohol Use and Migration: A Binational Study among Indigenous Mexican Migrants in Yucatán and California”

**Carolyn Zambrano**, Graduate Student, Department of Sociology, University of California, Irvine ([zambranc@uci.edu](mailto:zambranc@uci.edu))

“Familism and Immigrant Generation: Measuring Obesity and Diabetes among Mexican-Americans”

**Oscar F. Gil-García, Ph.D.**, Post Doctoral Fellow, Department of Anthropology, University of California, Los Angeles ([Dr.gilgarcia@gmail.com](mailto:Dr.gilgarcia@gmail.com))

“Migration, the Body, and Masculinity: Studying the Effects of Migration on Male Conceptions of the Body and Sexual and Reproductive Health in Mexico and the United States”

**Teresita Rocha Jimenez**, Graduate Student, Research Coordinator at Global Public Health Division, University of California, San Diego

“Exploring Migration and HIV Risk among Female Sex Workers along the Mexico-Guatemala Border”

**Lizette Ojeda, Ph.D.**, Assistant Professor, Counseling Psychology Program, Department of Educational Psychology, Texas A&M University ([lizetteojeda@tamu.edu](mailto:lizetteojeda@tamu.edu))

“Discrimination and Machismo as Predictors of Alcohol Use among Latino Day Laborers”

SESSION NINE The Science of Adaptation: Improving Prevention Services for Minority Youth (Abstracts on p.28-29) (Diamond 2)

**CHAIR** **Lori K. Holleran Steiker, Ph.D., ACSW**, Associate Professor, School of Social Work, University of Texas at Austin ([lorikay@mail.utexas.edu](mailto:lorikay@mail.utexas.edu))

**PRESENTERS** **Felipe G. Castro, Ph.D., MSW**, Professor and Director of Health Psychology, Senior Advisor to Provost for Engaged Health Disparities, Department of Psychology, University of Texas, El Paso ([Fcastro4@utep.edu](mailto:Fcastro4@utep.edu))

“Understanding Basic Constructs of Program Adaptation”

**Flavio F. Marsiglia, Ph.D.**, *Distinguished Foundation Professor of Diversity and Health, Director of Southwest Interdisciplinary Research Center (SIRC), School of Social Work, Arizona State University (marsiglia@asu.edu)*  
 “Keepin’ it REAL: Adaptation for Youth in Jalisco-Mexico.”

**Lori K. Holleran Steiker, Ph.D., ACSW**  
 “Keepin’ it REAL: Adaptation as Intervention for Older Youth in High School and Community Settings.”

**Jeremy T. Goldbach, Ph.D., LMSW**, *Assistant Professor, University of Southern California, School of Social Work (goldbach@usc.edu)*  
 “Keepin’ it REAL: Adaptation for LGBT Youth”

**Jennifer M. Reingle, Ph.D.**, *Assistant Professor Dallas Regional Campus, Division of Epidemiology, Human Genetics, and Environmental Sciences, University of Texas School of Public Health (jennreingle@gmail.com)*  
 “The Role of Depressive Symptoms and Heavy Alcohol Use in Teen Dating Violence Among a High-Risk Sample of Urban Hispanic Youth”

**Kathryn M. Nowotny, M.A.**, *Graduate Student, Department of Sociology & CU Population Center, University of Colorado at Boulder (kathryn.nowotny@colorado.edu)*  
 “Adult Social Bonds, Crime, and Drug Use among Disadvantaged Mexican American Males”

SESSION TEN Acculturation and Health Risk Behaviors in Hispanic Immigrant Adolescents (Abstracts on p.30-31)  
 (Crystal 1)

CHAIRS **Seth J. Schwartz, Ph.D.**, *Associate Professor, Department of Epidemiology and Public Health, University of Miami Miller School of Medicine (SSchwartz@med.miami.edu)*

PRESENTERS **Jennifer B. Unger, Ph.D.**, *Professor of Preventive Medicine, Institute for Health Promotion and Disease Prevention Research, University of Southern California Keck School of Medicine (unger@usc.edu)*  
 “Longitudinal Associations Between Cultural Orientation During High School and Substance Use During Emerging Adulthood Among Hispanic Youth in Los Angeles”

**Elma I. Lorenzo-Blanco, M.S., TLLP**, *Pre-Doctoral NIDA/UMSARC Trainee, Clinical Psychology and Women’s Studies, Department of Psychology, University of Michigan (elmalb@umich.edu)*  
 “Cigarette and Alcohol Use in Recent Immigrant Latino/a Youth: Acculturation, Gender, and the Theory of Reasoned Action”

**Sabrina E. Des Rosiers, Ph.D.**, *Assistant Professor, Department of Psychology, Barry University (SDesRosiers@mail.barry.edu)*  
 “Heterogeneity in Acculturation: Association with Alcohol Expectancies and Alcohol-Related Problems Among Recent Immigrant Hispanic Adolescents”

**Seth J. Schwartz, Ph.D.**  
 “Acculturation and Risk Behavior in Hispanic Immigrant Adolescents: An Expanded Theoretical and Empirical Perspective”

**Tatiana Perrino, Psy.D.**, *Research Assistant Professor, Department of Epidemiology & Public Health, University of Miami Miller School of Medicine (tperrino@med.miami.edu)*  
 “Effects of Familias Unidas in Preventing Adolescent Internalizing Symptoms & the Role of Gender, Acculturation and Alcohol Use”

SESSION ELEVEN Connections Matter: Applications of Network Analysis in Hispanic Health Research (Abstracts on p.31-32) (Ivory)

CHAIRS **Karla D. Wagner, Ph.D.**, *Assistant Professor, Division of Global Public Health, Department of Medicine, University of California San Diego (kdwagner@ucsd.edu)*

**Janet Okamoto, Ph.D., MPH**, *Cancer Research Training Award Fellow, Science of Research and Technology Branch, Behavioral Research Program National Cancer Institute (Janet.okamoto@nih.gov)*

PRESENTERS **Hank Green, Ph.D.**, *Behavioral Scientist, Department of Health Promotion and Disease Prevention, RAND Health (hankgreen@gmail.com)*  
 “The Relationship Between Social Network Features and Support Seeking Behaviors Among Hispanics Treated for Depression”

**Sanjay Mehta, M.D.**, *Assistant Clinical Professor of Medicine, Division of Infectious Diseases, University of California, San Diego (srmehta@ucsd.edu)*  
 “Molecular Epidemiology of HIV in the San Diego-Tijuana Border Region”

**Deborah Wojcik, Ph.D.**, *Post Doctoral Research Fellow, School of Education, Stanford University*  
([dwojcik@stanford.edu](mailto:dwojcik@stanford.edu))  
"Overlapping Personal Networks"

DISCUSSANT **C. Hendricks Brown, Ph.D.**, *Professor and Director, Center for Prevention Implementation Methodology, Department of Epidemiology & Public Health, University of Miami Miller School of Medicine* ([CHBrown@med.miami.edu](mailto:CHBrown@med.miami.edu))

SESSION TWELVE **Illegal Substance Use, Mental Health, and Demographic Cultural Diversity in California** (Abstracts on p.32-33) (Crystal 2)

CHAIR **Javier Lopez-Zetina, Ph.D.**, *Associate Professor, Department of Health Science, California State University, Long Beach* ([jlopezze@csulb.edu](mailto:jlopezze@csulb.edu))

PRESENTERS **Javier Lopez-Zetina, Ph.D.**  
"Migration, Mental Health and Substance Abuse in the U.S and Mexico"

**Britt Rios-Ellis, Ph.D.**, *Professor of Health Sciences and the Director of the National Council of La Raza (NCLR)/CSULB Center for Latino Community Health, Evaluation and Leadership Training, California State University, Long Beach* ([bellis@csulb.edu](mailto:bellis@csulb.edu))

**Jaina Pallasigui, MPH**, *Research Fellow, NCLR/CSULB Center for Latino Community Health Department of Health Science, California State University, Long Beach* ([jeynuh@gmail.com](mailto:jeynuh@gmail.com))  
"Migration, Mental Health and Substance Use in the U.S. and Mexico: Methodological Issues in Cross-National Research"

**Bridget Rogala, MPH**, *Director, Minorities Overcoming Risk, Substance Abuse Foundation of Long Beach, California and California State University, Long Beach* ([bridgeterogala@hotmail.com](mailto:bridgeterogala@hotmail.com))

**Christine N. DiRubbo, Psy.D., M.S.**, *Research Intern, Minorities Overcoming Risk, Substance Abuse Foundation of Long Beach, California* ([rogalab@safinc.org](mailto:rogalab@safinc.org))  
"Minorities Overcoming Risk, Substance Abuse Foundation of Long Beach, California"

**Catalina Lopez-Quintero, M.D., Ph.D., MPH**, *Post Doctoral Research Associate, Michigan State University* ([clopez@msu.edu](mailto:clopez@msu.edu))  
"Heroin Use among Hispanics in the United States: Results from the National Survey on Drug Use and Health"

6:45 PM–7:30 PM TRANSITION

7:30 PM–10:00 PM ANNUAL AWARDS DINNER DANCE - Emerald Ballroom

## Saturday 29 September 2012

8:00 AM–9:30 AM CONTINENTAL BREAKFAST AND POSTER SESSION 2 (Crystal Foyer)  
Posters numbered 26-47 pp. 42-48

9:30 AM-11:30 AM ROUNDTABLE DISCUSSION ON SCIENTIFIC APPROACH (Abstracts on p.33) (Crystal)

CO-CHAIRS **William Vega, Ph.D.**, *Provost Professor and Director, Roybal Institute, University of Southern California* ([williaav@usc.edu](mailto:williaav@usc.edu))

**Hortensia Amaro, Ph.D.**, *Dean's Professor of Social Work and Preventive Medicine Associate Vice Provost for Community Research Initiatives, School of Social Work, University of Southern California, Los Angeles* ([hamaro@usc.edu](mailto:hamaro@usc.edu))

PRESENTERS **Marvin Southard, D.S.W.**, *Director, Department of Mental Health, Los Angeles County* ([MSouthard@dmh.lacounty.gov](mailto:MSouthard@dmh.lacounty.gov))  
"Preparing the Los Angeles County Mental Health System to Provide Evidenced-Based Care for Addictions"

**John Auerbach, M.B.A.**, *Commissioner, Massachusetts Department of Public Health* ([John.Auerbach@state.ma.us](mailto:John.Auerbach@state.ma.us))  
"Introducing Integrated Behavioral Health Care at the State-Level in Massachusetts"

11:30 AM–12:00 PM BOX LUNCH PICK-UP (Crystal Foyer)

12:00 PM CONFERENCE ADJOURNS

## Speaker Biographies



### **Margarita Alegria, Ph.D.**

*2012 NHSN Scientific Conference Co-Chair*

Margarita Alegria, Ph.D., is a Professor of Psychology in the Department of Psychiatry at Harvard Medical School and currently serves as the principal or co-principal investigator of two National Institutes of Health-funded research studies. Dr. Alegria's published work focuses on the improvement of health care services delivery for diverse racial and ethnic populations, conceptual and methodological issues with multicultural populations, and ways to bring the community's perspective into the design and implementation of health services. Dr. Alegria also conducts research that will contribute to an understanding of the factors influencing service disparities, and testing interventions aimed at reducing disparities for ethnic and racial minority groups. Her other work has highlighted the importance of contextual, social, and individual factors that intersect with nativity and are associated with the risk for behavioral health problems. In conducting this work, she has actively mentored numerous students and junior investigators.

As a result of her contributions to her field, Dr. Alegria has received: the 2003 Mental Health Section Award of the American Public Health Association; the 2008 Carl Taube Award from the American Public Health Association, the Health Disparities Innovation Award from the National Institute on Minority Health and Health Disparities; the 2009 Simon Bolivar Award from the American Psychiatry Association; the 2011 Harold Amos Diversity Award from the Harvard Medical School Office of Diversity and Community Partnership; and the Award of Excellence in Mentorship from the National Hispanic Science Network on Drug Abuse. In October of 2011, Dr. Alegria was elected to be a member of the Institute of Medicine (IOM)



### **Nicholas Gilpin, Ph.D.**

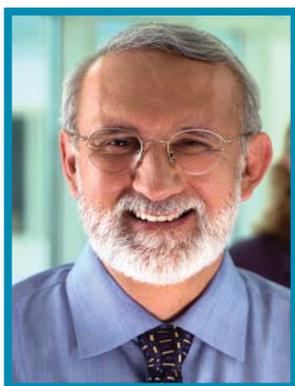
*2012 NHSN Scientific Conference Co-Chair*

Dr. Gilpin completed his undergraduate training in Psychology at University of Texas at Austin, and his Ph.D. in Psychobiology at Indiana University-Purdue University at Indianapolis. During his graduate training, Dr. Gilpin worked with genetic models of alcoholism. Dr. Gilpin went on to complete a post-doctoral fellowship in the labs of Drs. George Koob and Marisa Roberto at The Scripps Research Institute in La Jolla, CA, where he used behavioral pharmacology & electrophysiology techniques to explore neural and behavioral dysregulation associated with alcohol dependence. Dr. Gilpin is currently an Assistant Professor at LSU Health Sciences Center in New Orleans and remains very interested in questions of addiction. In particular, his lab is interested in understanding why and how alcohol addiction is comorbid with addiction to other drugs and other psychiatric conditions, as well as individual and group differences in the propensity of addicts to consume alcohol and drugs.



### **Janet Okamoto, Ph.D.**

Janet is a Post-Doctoral Cancer Research Training Award (CRTA) Fellow in the Behavioral Research Program (BRP) in the Division of Cancer Control and Population Sciences (DCCPS) at the National Cancer Institute (NCI). She works with the Science of Team Science group in the Science of Research and Technology Branch and the Process of Care Research Branch (PCRB). She received her doctorate in Preventive Medicine (Health Behavior Research) from the University of Southern California. Janet's research at NCI examines using social network analysis to evaluate and better understand health and health behaviors, as well as evaluating the impact and contributions of team science initiatives. Her work has primarily focused on examining the effect of social influences, interpersonal interactions, and collaboration on behavior. Her larger research interests include an examination of how multi-level factors from the larger social-environmental context, social network structure and characteristics, group and team dynamics and attributes, and individual characteristics interact to influence complex health behaviors and the researchers who study them.



### Sergio Aguilar-Gaxiola, M.D., Ph.D.

Sergio Aguilar-Gaxiola, M.D., Ph.D. is Professor of Clinical Internal Medicine, School of Medicine, University of California, Davis. He is the Founding Director of the Center for Reducing Health Disparities at the UC Davis Health System and the Director of the Community Engagement Program of the UCD Clinical Translational Science Center (CTSC) and co-chair of the NIH's Community Engagement Key Function Committee for the NIH-funded Clinical Translational Science Awards (CTSAs). In 2007, he completed a four-year term as a member of the National Advisory Mental Health Council (NAMHC), National Institute of Mental Health (NIMH). He was Past Chair of the Board of Directors of Mental Health America (MHA; formerly the National Mental Health Association). He is currently a Research Scientist member of the National Hispanic Science Network on Drug Abuse (NHSNDA), a member of the Scientific Advisory Committee of Autism Speaks, a member of the International Advisory Committee of the Carlos Slim Health Institute, and a member of the California Medical Board's Cultural and Linguistic Competency Program Workgroup. He has held several World Health Organization (WHO) advisory board and consulting positions and is currently the Coordinator for Latin America and the Caribbean of the World

Health Organization (WHO) World Mental Health Surveys Consortium. Dr. Aguilar-Gaxiola's research includes cross-national comparative epidemiologic research on patterns and correlates of mental disorders and substance abuse in general population samples. His applied research program has focused on identifying unmet mental health needs and associated risk and protective factors to better understand and meet population mental health needs and reduce mental health disparities in underserved populations. He is also very active translating mental health and substance abuse research knowledge into practical information that is of public health value to consumers, service administrators, and policy makers. Dr. Aguilar-Gaxiola is the author of numerous scientific publications. He is the recipient of multiple awards including the DHHS' Office of Minority Health's 2005 National Minority Health Community Leader Award (Hispanic Community), Washington and the 2009 National Award of Excellence in Blending Research and Practice from the National Hispanic Science Network. Dr. Aguilar-Gaxiola was a member of the IOM/NRC Committee on Depression, Parenting Practices, and the Health Development of Young Children (2007-2009) report and more recently a member of the recently published IOM/NRC Women's Health Research: Progress, Pitfalls, and Promise (2010) report.



### Glorisa Canino, Ph.D.

Glorisa is a Professor at the School of Medicine, Department of Pediatrics, and the Director of the Behavioral Sciences Research Institute, University of Puerto Rico, School of Medicine. She is presently Principal or co principal investigator of several grants funded by the National Institute of Health. She has published substantially in the area of instrument psychometrics, psychiatric epidemiology, mental health services research, pediatric asthma and health disparities. At present she is the principal investigator of a Health Disparity Center in collaboration with Cambridge Health Alliance and Harvard University, principal investigator of an ARRA grant to test a telephone CBT intervention and principal investigator of a study designed to test an intervention for depressed mothers of children with asthma. Glorisa has been for the past 24 years a leading Latino researcher and her various research studies have resulted in more than 200 publications in scientific journals. Glorisa loves to cook, swim, travel, do yoga, listen to opera and classical music, watch movies and overall loves to read, particularly novel scientific developments and South American novels.



### Jose Ruiz, Ph.D.

Dr. Jose Ruiz is a Scientific Review Officer (SRO) for peer-review meetings held for the National Institute on Drug Abuse (NIDA)/National Institutes of Health (NIH). The primary scientific focus of grant applications and contract proposals managed by Dr. Ruiz is on medications development topics ranging from the development of new chemical entities to clinical trials. In addition, Dr. Ruiz has experience in developing Funding Opportunity Announcements (FOAs), participating in outreach activities, and constructing and testing database concepts to improve research portfolio analyses and to facilitate the identification of subject matter experts. Previously, at the National Institute of Nursing Research (NINR), Dr. Ruiz served as a Health Science Policy Analyst with responsibility for: analyzing and reporting on NINR research activities and related budgets, all aspects of Government Performance and Results Act (GPRA) goals, communication products, and science policy issues. Earlier experience at the NIH GPRA Office comprised all aspects of GPRA planning and reporting for NIH. Dr. Ruiz earned a B.A. in Biochemistry and Molecular Biology and a Ph.D. in Genetics while making contributions to the understanding of ligand-receptor interactions pertinent to atherosclerosis, Alzheimer's disease, coagulation, angiogenesis, tumor growth, and neuronal development. Key aspects of this work have been published in peer-reviewed research articles or made available through poster presentations and meeting abstracts.



**Joseph Frascella, Ph.D.**

Joseph Frascella, Ph.D. is currently the Director of the Division of Clinical Neuroscience and Behavioral Research at the National Institute on Drug Abuse (NIDA) and heads a broad drug abuse and addiction program of translational research and research training in clinical neuroscience, human development, and behavioral treatment. Prior, he served for several years as the Chief of the Clinical Neurobiology Branch as well as the program director of NIDA's basic pain, basic research training, and human neuroimaging programs. He serves on many committees and workgroups both within NIDA and across the NIH. Before joining NIDA, Dr. Frascella directed a neurophysiology research program at the Armed Forces Radiobiology Research Institute in Bethesda, Maryland, and prior to that he served on the faculty of the Department of Psychology at Brown University. He received an B.A. in Biopsychology from Hamilton College, and a M.Sc. and a Ph.D. degree in Experimental Psychology/Neuroscience from Brown University.



**Patricia Molina, M.D., Ph.D.**

Patricia Molina completed her MD training at the Universidad Francisco Marroquin in Guatemala, Central America. Thereafter, she pursued a PhD in Physiology at LSUHSC under the mentorship of Dr. John J. Spitzer, presenting her dissertation on "Ethanol-endotoxin interaction with carbohydrate metabolism". Her postdoctoral experience at Vanderbilt University was supported by a NIGMS Minority Supplement Grant under the mentorship of Dr. Najj N. Abumrad. She progressed through the academic ranks initially as an Assistant Professor of Surgery and Physiology at the State University of New York, Stony Brook and subsequently as Director of Surgical Research at North Shore University Hospital. During that period, she held a Guest Scientist appointment at Brookhaven National Laboratory prior to joining the Department of Physiology at LSUHSC as an Associate Professor. Since becoming a faculty member at LSUHSC, Dr. Molina has obtained tenure and promotion to the rank of Professor, and has been named the Richard Ashman, PhD Professor in Physiology. On September 2008, she was appointed Department Head for Physiology. Dr. Molina's research has been funded continuously since completing

her PhD degree. She has mentored several undergraduate, graduate and post-doctoral trainees. Dr. Molina is a member of the faculty of the School of Graduate Studies, the Graduate Education Committee in Physiology, The Graduate Advisory Council, and is a mentor for the LSUHSC Interdisciplinary Graduate Program. Dr. Molina is an active member of several committees within the LSUHSC and is also actively involved in the Scientific Community outside the institution. Currently, she is the Chair for the National Hispanic Science Network on Drug Abuse and Councilor of the American Physiological Society. Research in her laboratory focuses on the impact of alcohol and drug abuse on the cardiovascular, metabolic and immune consequences of acute traumatic injury and hemorrhagic shock. In addition, work in her laboratory also investigates the interaction of chronic alcohol and cannabinoid use on the behavioral, metabolic, and immune consequences of HIV/AIDS. Currently, work in her laboratory is funded by NIAAA, NIDA, and CDMRP.



**Kristine Molina, Ph.D.**

Kristine is currently a postdoctoral research fellow at the University of Miami in the NHLBI-funded Behavioral Medicine Research in Cardiovascular Disease Training Program. In 2011, she earned a joint Ph.D. in Personality & Social Contexts Psychology and Women's Studies from the University of Michigan. Her dissertation, using the National Latino and Asian American Study, focused on examining differential exposure to sources of social marginality, the multiple pathways through which social marginality indirectly affected self-rated physical health, as well as the ways in which gender and ethnicity interactively shaped these pathways among Latino adults. Kristine's developing line of research is aimed at understanding the unique role that discrimination and socioeconomic status play in contributing to adverse health outcomes among Latino populations. Particularly, this work is focused on elucidating the pathways that link social factors to psychiatric and medical comorbidities and in understanding the different coping mechanisms employed for coping with such conditions in the context of structural disadvantage



### **Rumi Price, Ph.D.**

Rumi Kato Price, PhD MPE was born and raised in Japan. After obtaining a PhD from University of California at Berkeley, she further obtained a specialty master's degree in psychiatric epidemiology from the Department of Psychiatry in Washington University School of Medicine (WUSM) in St. Louis which became her academic home to date. Dr. Price, a Professor in the Department of Psychiatry, is Director of the NIDA T32 Training Program in Epidemiology, Services and Prevention Research in Department of Psychiatry, WUSM. She also directs the Psychiatric and Behavioral Health Sciences Concentration within the School's Master of Population Health Sciences (MPHS); and is also Interim Director of VA St. Louis Health Care System, Health Services Research and Development group. Dr. Price's past and on-going research includes twenty research grants and career awards as Principal Investigator. Her most notable past accomplishment relates to her studies of a cohort of at high-risk Vietnam veterans which focused on longitudinal outcomes over 30 years, especially drug abuse, PTSD and suicidality. She is currently examining impacts of war trauma and deployment to Iraq and Afghanistan on aspects of trauma spectrum disorder. Along her studies on trauma and substance abuse on special populations, Dr. Price has also analyzed

a number of general population studies to examine drug abuse and psychiatric disorder epidemiology. Most relevant for this Conference is her work in drug abuse disparity which has been conducted as part of her membership in the National Institute on Drug Abuse (NIDA) Asian American and Pacific Islanders (AAPI) Workgroup since 1999. This series of work focused on within race variability of substance abuse and role of mixed race in minority substance abuse patterns.



### **R. Dale Walker, M.D.**

R. Dale Walker, M.D is Professor of Psychiatry and Professor of Public Health and Preventive Medicine at the Oregon Health and Science University. He is Director of the One Sky Center, [www.oneskycenter.org](http://www.oneskycenter.org), a National Resource Center for American Indian Health, Education and Research. This Center provides expert consultation, training, and technical assistance that facilitates strategic planning and leadership development for optimal health service delivery for tribes and Native communities across North America. It also provides program evaluation and dissemination of evidence-based, culturally appropriate best practices. He is a 1972 graduate of the University of Oklahoma College Of Medicine, with residency training in Psychiatry at the University Of California School Of Medicine in San Diego.

His career includes research grants and scores of publications and presentations related to substance abuse and mental health issues in Indian Country. He has held numerous national leadership roles, including Speaker of the American Psychiatric Association's Assembly, president of the Association of American Indian Physicians, scientific program coordinator for that organization in 2008 and 2011, director and founder of the VA National Center of Excellence for Substance Abuse Treatment for the Seattle Veteran's Affairs Medical Center

program at the University of Washington, Founding President of the First Nations Behavioral Health Association, Director of the One Sky Center, and Director of a National Institute of Drug Abuse and National Institute of Alcohol and Alcohol Abuse funded National Mentorship program for American Indian students interested in addictions research. He is dedicated to and advocates for quality medical and mental health services for American Indian people. His mentorship and advocacy efforts include mentorship for fellow psychiatrists, primary care physicians, mental health workers from all disciplines, State and Federal policy makers and Tribal Government leaders.



### **Anne Kathleen Burlew, Ph.D.**

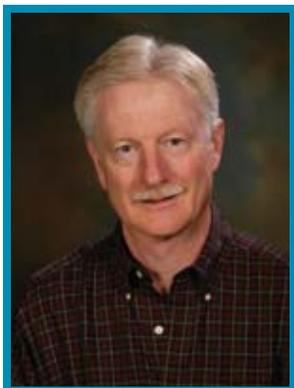
Ann Kathleen Burlew, Ph.D., is a Professor of Psychology at the University of Cincinnati. She received her Ph.D. in Social Psychology from the University of Michigan in 1974 and later completed postdoctoral training in clinical psychology. Her areas of specialization include health and social behavior, clinical psychology, and program evaluation, especially intervention research. Her current research interests include the efficacy of interventions for at-risk youth, efficacy of family interventions for children of substance abusers, the diagnosis of schizophrenia and other disorders in African American patients, the accuracy of self-report in substance abuse research, and psychosocial correlates of sickle cell disease. She has served as Editor-in-Chief of The Journal of Black Psychology and has co-edited and co-authored several books.



### Daniel Sarpong, Ph.D.

Dr. Sarpong has been Director, Senior Biostatistician and Co-Principal Investigator of the Jackson Heart Study Coordinating Center (Jackson State University) since September 2003. He is also a Research Professor of Biostatistics at Jackson State University. Prior to Jackson Heart Study in August 2000, he was a tenured Associate Professor of Biostatistics at Xavier University of Louisiana in the College of Pharmacy. Dr. Sarpong was an Assistant Professor of Mathematics. From 1991 to 1995, Dr. Sarpong was a resident statistician for Health Education Enrichment Resource U.S. Project: AIDS Prevention Program for Teenagers (CDC funded project); research coordinator for Desire Narcotics Research Center, New Orleans, Louisiana. Project: Cooperative Agreement (National Institute of Drug Abuse funded project) and consulting statistician to The Deep South Center for Environmental Justice of Xavier University, New Orleans Louisiana. Dr. Sarpong is an enthusiastic and energetic educator who is committed in empowering students in pursuing the next generation of cutting-edge careers. He mentors high school to graduate students. He is passionate about passing the touch to next generation of educators

and professionals. He is also a motivational speaker who is the creator of the GAPP technology for Success. He is an invited faculty of Pharmacoeconomics and Outcomes Research to the Caribbean Association of Pharmacists. Dr. Sarpong is a member the following professional organizations: American Statistical Association, International Society for Pharmacoeconomics and Outcome Research (ISPOR), American Heart Association, and Society of Clinical Trials. He has published and presented several scientific papers. He has applied biostatistical and research methods to the fields of: cardiovascular disease epidemiology, substance abuse and HIV/AIDS and pharmacoeconomics and outcomes research.



### George Koob, Ph.D.

George F. Koob, Ph.D., is a Professor and Chair of the Committee on the Neurobiology of Addictive Disorders at The Scripps Research Institute and Adjunct Professor in the Departments of Psychology and Psychiatry, and Adjunct Professor in the Skaggs School of Pharmacy and Pharmaceutical Sciences at the University of California, San Diego. He has contributed to our understanding of the neurocircuitry associated with the acute reinforcing effects of drugs of abuse and neuroadaptations of these reward circuits associated with the transition to dependence. He has published over 670 scientific papers. He is Director of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Alcohol Research Center at The Scripps Research Institute, Consortium Coordinator for NIAAA's multi-center Integrative Neuroscience Initiative on Alcoholism, and Co-Director of the Pearson Center for Alcoholism and Addiction Research. He is Editor-in-Chief for the journals Pharmacology Biochemistry and Behavior and Journal of Addiction Medicine. He won the Daniel Efron Award for excellence in research from the American College of Neuropsychopharmacology, was honored as a Highly Cited Researcher from the Institute for Scientific Information, was presented with the Distinguished Investigator Award from the Research Society on Alcoholism, and won the Mark Keller Award from NIAAA.



### Richard De La Garza, Ph.D.

Richard ("Rich") De La Garza completed his Ph.D in neuroscience at the University of Texas Medical Branch followed by postdocs at Harvard Medical School and Yale University School of Medicine. At present, Dr. De La Garza is Associate Professor with tenure in the Menninger Department of Psychiatry and Behavioral Sciences at the Baylor College of Medicine. He holds secondary appointments in the Departments of Neuroscience and Pharmacology. He is also Associate Professor and Director of Research in the Department of Psychiatry at M. D. Anderson Cancer Center, with a secondary appointment in the Department of Behavioral Science. Dr. De La Garza conducts laboratory studies in humans to investigate the safety and efficacy of novel medications for methamphetamine and cocaine addiction. He is also interested in cancer prevention as it relates to smoking cessation research and is conducting a study for alcoholism among veterans with TBI and PTSD. Dr. De La Garza has published more than 70 refereed articles and he has 5 active NIDA grants as Principal Investigator and 4 active NIDA grants as Co-Investigator. He has received numerous honors including being named a Distinguished Alumnus of his alma mater, and being appointed a Kavli Fellow of the National Academy of Sciences. He is an appointed member of the NIH study section Biobehavioral Mechanisms of Emotion, Stress and Health. Notably, Dr. De La Garza is a member of the Board of Directors and President of the College on the Problems of Drug Dependence – the oldest and largest scientific society dedicated to addiction research in the country.



### Steven Shoptaw, Ph.D.

Steven Shoptaw Ph.D., is Professor and Vice Chair for Academic Affairs in the Department of Family Medicine and Professor in Psychiatry and Biobehavioral Sciences at UCLA. Dr. Shoptaw and his group have led 23 clinical trials (Phase I and Phase II) of medical and behavioral treatments, primarily for stimulant dependence. He is Co-Chair of the HIV Prevention Trials Network's Substance Use Scientific Committee. At UCLA, Dr. Shoptaw is Director of the Combination Prevention Core and Co-Director for the UCLA Center for HIV Identification and Prevention and Treatment Services. From this vantage, Dr. Shoptaw evaluates the efficacy of antiretroviral medications when combined with behavioral therapies for HIV prevention. He directs a T-32 training grant in the Department of Family Medicine training the next generation of clinical researchers on addiction medicine in primary care and volunteers as Executive Director for Safe House, a 26-bed facility that provides high-tolerance based housing to homeless persons living with HIV/AIDS who have concomitant mental illnesses and chemical dependency.



### Marvin Southard, D.S.W.

Dr. Southard joined the Los Angeles County Department of Mental Health as Director in 1998, having previously served in Kern County, California, in a similar capacity for five years. In his current role, Dr. Southard leads the largest public mental health system in the country, serving over 236,000 clients annually in one of the most ethnically diverse counties in the nation, with a budget of over \$1.7+ billion.

Dr. Southard has been recognized for his dedication and leadership with the following Awards:

- The 2008 National Network for Social Work Managers Exemplar Award for outstanding achievement.
- The National Association of Social Workers (NASW) 2006 Social Worker of the Year—California Chapter.
- The National Alliance on Mental Illness (NAMI) 2003 Award for Excellence in Community Mental Health Services, in recognition of ongoing efforts to building a comprehensive community care mental health system in Los Angeles County.
- The 2003 Tom Bradley Equal Opportunity award from the Los Angeles Metro Chapter of the

American Society of Public Administration. Dr. Southard is a Governing Board Member and a past President of the California Mental Health Director's Association. He is the President, Board of Directors, of the California Social Work Education Center. He serves as a Board Member for the California Institute for Mental Health, the PLAN of California and the National Network for Social Work Managers. A member of the American College of Mental Health Administrators, he serves as a Commissioner on Los Angeles County Children and Families First – First 5 LA Commission. He has served as an Associate Clinical Professor at UCLA School of Medicine, Department of Psychiatry and Biobehavioral Sciences; as a Senior Fellow, Public Policy at UCLA School of Public Policy and Social Research; and as a Clinical Associate Professor of Psychiatry and the Behavioral Sciences at University of Southern California Keck School of Medicine. Dr. Southard's experience in academia also includes an eight-year stint teaching graduate psychosocial science courses for the Department of Social Work, California State University, Long Beach. His prior experience within the Los Angeles County public mental health system includes seven years as Vice President of Mental Health Programs and Director of Clinical Services at El Centro Human Services Corporation, and four more years in other positions with El Centro. A licensed clinical social worker, Dr. Southard received his master's degree in social work from University of California, Berkeley, and his doctorate in social work at UCLA. Dr. Southard and his wife, Carolyn, have two sons—Patrick and Adam. Dr. Southard is committed to his spiritual walk, his family, and his work as the Director of Los Angeles County Department of Mental Health. He is dedicated to enriching the lives of mental health clients, families and communities in Los Angeles County by creating HOPE, WELLNESS, and RECOVERY.



### John Auerbach, M.B.A.

John Auerbach was appointed Massachusetts's Commissioner of Public Health in April, 2007. Under his leadership the Department has developed new and innovative programs to address racial and ethnic disparities, to promote wellness (including the Mass in Motion campaign), to combat chronic disease and to support the successful implementation of the state's health care reform initiative. From 2010-2011, Auerbach also served as a term as President for the Association of State and Territories Health Officials (ASTHO), and currently is on the Executive Committee. Prior to his appointment as Commissioner, Auerbach had been the Executive Director of the Boston Public Health Commission for 9 years. He had previously worked at the State Health Department for a decade, first as the Chief of Staff and later as an Assistant Commissioner overseeing the HIV/AIDS Bureau.

# Abstracts for Oral Presentations

## Wednesday 26 September 2012

1:00 PM–5:30 PM

### METHODOLOGY PRECONFERENCE SESSION

Introduction to Network Analysis: Concepts, Methods, and Applications

#### **C. Hendricks Brown and Janet Okamoto**

The main purpose of this workshop is to provide an introduction and overview of network analysis. The workshop will introduce participants to the language, methodology, and theories used in the analysis of network data. Network data collection, types, and analyses will also be discussed. Examples of four broad categories of network analysis – social networks, information networks, technological networks, and biological networks – will be presented. An overview of how network data are displayed and visualized using available programs will be covered. We will review relevant applications of network analysis and discuss the rewards and challenges of using this methodology. A new taxonomy of network interventions will also be outlined and discussed. The workshop will conclude with a participant discussion of interests, potential applications, findings, and experiences with network analysis. Included will be an open discussion of how network analysis can be applied to research involving Hispanic populations from a systems science, cells to society, viewpoint. The objectives of this session are to introduce core network analysis concepts; to understand the potential uses and applications of network analysis in various contexts (biological, social, etc.); to learn how to more effectively evaluate and interpret network research findings; and to generate and discuss ideas and applications of network analysis to participants' own work. This preconference is open to behavioral, biologic, or methodologic researchers and policy makers, especially those who are interested in Hispanic health, and in implementation research. The material is addressed to those who seek an introduction to this topic and want to learn how networks may be brought into their own work.

## Thursday 27 September 2012

9:00 AM–11:00 AM

### USING RESEARCH AS THE COMPASS TO BRIDGE THE GAP IN BEHAVIORAL HEALTH SERVICES FOR MINORITIES

#### **Margarita Alegría and Sergio Aguilar-Gaxiola**

This opening panel uses research findings from state of the art studies in epidemiology, health services research and policy interventions to identify how to bridge the gap in behavioral health services for Latinos. Data from epidemiological studies identifies who is at risk, how risk differs by Latino subpopulations and what findings can tell us of who needs to be targeted for treatment services. Results of disparities studies are then considered to demonstrate the problem of unmet need for care and the unfair allocation and quality of treatment services. The last presentation describes a novel approach of intersecting policy and research to introduce changes in access to services and in training a diverse workforce to fill the service gap. The panel ends with a series of recommendations of how research can serve as a compass to bridge the gap in behavioral health services for minority populations.

#### **How our Health Care System Perpetuates Disparities in Behavioral Health Services for Ethnic and Racial Minorities** **Margarita Alegría**

This presentation covers a review of research studies evidencing disparities in access and treatments for substance use disorders, demonstrating a system that appears discriminatory and shortchanges minorities by offering limited quality of behavioral health care. We provide data showing

how the US healthcare system does not adequately consider the behavioral health care needs of racial/ethnic populations, especially within the primary care system. A combination of factors related to socioeconomic status, insurance, and treatment preferences does not allow for adequate behavioral health treatment for these populations, with extremely negative consequences. The presentation discusses potential interventions that could reduce these service disparities.

#### **Addressing the SUD Treatment Gap through Advocacy and Legislation - Sergio Aguilar-Gaxiola**

Research on prevalence and patterns of service utilization, treatment effectiveness, and treatment efficacy particularly for Latinos is scarce in the U.S. and even more so in Latin America. Ethnic differences in accessing substance abuse disorders (SUD) have been reported for both adults and youth. There are few reports that provide information about the interventions that are delivered and even less is known about the effectiveness of these interventions. This presentation will address this significant challenge and will illustrate with an example from California the need for SUD treatment and discuss how disparity decreases could be achieved through advocacy and the adoption of policies, legislation and regulations that increase access and quality of services.

#### **Comparing the Prevalence of DSM-IV Substance Use Disorders Among Latino Subgroups Across Different National Surveys by Country of Origin, Migration Status and US Birth: Methodological Considerations and an Agenda for Future Research - Glorisa Canino**

The main objective of this presentation is to provide evidence of the importance of culture, context and methodological considerations in the prevalence of substance use disorders (SUD) among different Latino populations. Lifetime prevalence rates of DSM-IV specific substance use disorders (SUD) are presented for the adult population of Mexican Americans, Puerto Ricans, Cubans and Non-Latino Whites based on the results of three US National Surveys, the National Latino and Asian American Survey (NLAAS), (1) the National Comorbidity Survey Replication (NCS-R), (2) the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), (3) the National Addiction Survey of Puerto Rico (4) and the Mexican National Comorbidity Survey. Baseline rates of the country of origin are compared against the rates of SUD among US immigrants and those born in the US by gender. All surveys were probability samples of the population. All except the NESARC used the same version of the World Health Organization Composite International Diagnostic Interview (CIDI) for assessing SUD and all surveys were carried out more or less within the same period. However, method differences across studies are discussed as important in analyzing the different results observed. An agenda for future research on SUD is also discussed.

11:00 AM–12:00 PM

### GRANT APPLICATION PEER-REVIEW

#### **José Ruiz and Joseph Frascella**

According to the 2011 NIDA Diversity and Health Disparities Council Review Work Group (DHD Work Group) report, there is a great need to enhance the representation of minority groups in the process of review of grant applications. For that reason, one recommendation was to "provide applicants from diverse communities with opportunities to engage with the entire grant application review process." Furthermore, the DHD Work Group suggested expanding the efforts of the NIDA Special Populations Office, the Office of Extramural Affairs, and the Racial/Ethnic Minority Work Groups (REM work groups) to develop effective means for productively informing junior minority applicants about the entire competitive review and funding process. This Grant Application Peer-Review workshop addresses these recommendations. The learning objectives of this session are to become familiar with the entire

competitive review and funding process; the peer-review process and the role of a reviewer; the rules and regulations that govern activities of reviewers; the importance of participating as a reviewer and how to become a “successful” reviewer; and how to position oneself to become a reviewer. The workshop will include a mixture of presentations from NIH Program and Review staff, scientists with experience as NIH reviewers, and time for questions and answers.

2:00 PM–3:45 PM

#### TRAJECTORIES OF DRUG USE AMONG MINORITY POPULATIONS

**Yonette F. Thomas**

The panel focuses on factors in the social and genetic epidemiology of drug use among minority populations and appropriate treatment and intervention modalities. In addition, the panel presents the translation of epidemiology and interventions into science and practice. Panelists will discuss trajectories of drug use in minority populations and include discussions on the epidemiology, treatment and translational outcomes. Evidence presented within this panel will highlight that ethnic and racial minorities indeed experience differential risk for substance use problems based on where they reside. The learning objectives are to compare and identify the prevalence of drug abuse disorders among different racial and ethnic groups; determine different treatment and interventions related to drug abuse in minority populations; and differentiate how various interventions within the drug abuse population translate into science and practice.

#### **Neighborhood Context and Substance Use Disorders: A Comparative Analysis of Racial and Ethnic Groups in the United States - Kristine Molina**

There is evidence that ethnic/racial minorities are conferred differential risk for substance use problems based on where they live. Despite a burgeoning of research focusing on the role of neighborhood characteristics on health, limited findings are available on substance use. Our study examines: (1) What neighborhood characteristics are associated with risk of substance use disorders?; (2) Do the associations between neighborhood characteristics and substance use disorders remain after adjusting for individual-level factors?; and (3) Do neighborhood characteristics associated with substance use disorders differ by race/ethnicity after adjusting for individual-level factors? Nationally representative data (N= 13, 837) were drawn from the Collaborative Psychiatric Epidemiology Studies (CPES Geocode file) with 836 census tracts. Analyses included African American, Asians, Black Caribbean, Latino, and non-Latino white adults aged 18 years and older. Separate multilevel logistic regression models were fitted for any DSM-IV past-year substance use disorder, alcohol use disorder, and drug use disorder. This presentation will discuss how different characteristics of the environment may differentially impact racial/ethnic and nativity groups, independent of individual-level factors. Our study makes a significant contribution by documenting for whom and how neighborhood social environments may shape risk of substance use disorders.

#### **Role of Mixed Race (Admixture) in Minority Substance Use and Abuse - Rumi Price**

Increasing attention has been paid to both methodological as well as phenotypic inquires relating to racial/ethnic mixed race (admixed) populations. Population admixture is a source of information that can be used for analyses of genetic linkage disequilibrium. Biometric genetic concepts can be used to delineate the mechanisms of environmental risk factors. This presentation attempts to: (1) Document the extent of excess risk of the mixed race groups with and across racial groups; (2) Show that a method analogous to genetic admixture linkage can be applied to show environmental excess risk of mixed race substance abuse; and (3) Identify the sources of excess risk in mixed race adolescent and adult populations.

Mixed race individuals are at increased risk for most substance abuse and addiction measures, as a separate group, within a racial group, and across racial groups. An admixture “control” method suggests that environmental factors are more important in influencing excess risks. Further analyses indicate main risk factors are similar to those of non-mixed populations and may be limited to the adolescent period. Periodic monitoring of substance use patterns of mixed race appear warranted. Substance abuse health disparity research should include multiple racial identification measures. This presentation will discuss methods for identifying people who consider themselves belonging to multiple races and ethnicities; how to examine the associations of race/ethnicity with substance use and abuse measures; some of the reasons why mixed race individuals may report more frequent substance use and misuse that may be clinically significant; and how epidemiological research uses mixed race measures differently from genetic research.

#### **Connections and Collaborations: The Role Of Mentoring And Professional Networks In Career Success - Dale Walker**

The American Indian/Alaska Native population comprises about 1.7 percent of the U. S. population or approximately 5.2 million people. Their representation in research and science is low which is also seen in their low representation in leadership positions in academia, government and professional associations. Given these low numbers, the importance of establishing a critical mass of AI/AN scholars across discipline and professional boundaries will be discussed and the role that the AI/AN can play in this process. The presenter will also discuss efforts to increase the participation of American Indian/Alaska Native scholars in research and leadership position, focusing on the role of the Association of American Indian Physicians and a Native Mentorship Program in Addictions. The Native Mentorship program recruits AI/AN scholars across the educational and career pipeline and pairs them with established mentors from varying disciplines to encourage their participation in substance abuse research and related health concerns of AI/AN communities. They receive skills training in areas such as scientific writing and grant development, but most importantly they are encouraged to become deep thinkers and proficient advocates for American Indian health issues. Outcomes of the first cohort of mentees will be shared. Other topics that will be addressed include coalition building and networking with other groups, especially psychologists, and professional associations to maximize efforts and gain allies, challenges of recruiting AI/NA scholars into research and academia, and concerns about the development of community informed, evidence-based practices appropriate for AI/AN. The learning objectives of this presentation are to: review health professional disparity issues in Native populations; learn about a new, national project for mentorship with an integrative logic model for native mentors and mentees; and discuss utility of model across other special populations.

#### **Does Motivational Enhancement Therapy Benefit Black Substance Users?: Recent Findings - Ann Kathleen Burlew**

This presentation will describe findings from secondary analyses of studies conducted within the NIDA National Drug Abuse Treatment Clinical Trials Network (CTN) on the efficacy of Motivational Enhancement Therapy (MET) with Black Substance Abusers. The results for Blacks differ from earlier findings on other groups. The findings also suggest that the efficacy of MET may vary across subgroups of Black substance users.

**Translational Research in Substance Abuse in Ethnic Minorities: Methodologies and Implications - Daniel Sarpong**

The presentation will present comparative analysis of the traditional and emerging paradigms in addressing health disparities attributable to substance abuse in ethnic minority population. Examples of emerging approaches for translational research will be presented as case studies. The learning objectives for this presentations are to underscore the importance of translational research in ethnic minorities as an efficient approach in mitigating disparities in substance abuse and co-morbid conditions; present emerging methodologies and tools appropriate for translational research particularly in ethnic minority populations; and to propose efficient and effective dissemination paradigms that close the loop of translational research.

4:00 PM–6:00 PM BREAKOUT SESSION 1

**International Research (Ivory)**

**Antonio Cepeda-Benito and Ian Mendez**

In this session, investigators from different disciplines will present research focusing on health issues relating to the international Hispanic population. International researchers are developing new methods and making exciting discoveries that are improving our diagnosis, treatment, and overall understanding of mental health disorders in the international Hispanic population. This session will provide a forum for national and international NHSN members to present their current internationally-focused projects in a short “datablitz” talk, which will be followed by a short Q&A. The end of the session will be reserved for a group discussion open to any of the research topics presented during the session. This session will highlight NHSN’s commitment towards supporting international mental health research. This session will provide a forum for national and international NHSN members to present and explain at least 1 internationally-focused research project that they are currently working on. The end of the session will be reserved for a group discussion aimed at comparing and critiquing current international projects. Participants are required to provide feedback on at least 2 of the talks presented at the datablitz and the session will also serve to plan and design international research collaborations between international NHSN researchers. Participants of this session must pair up with at least 1 other participant in the session and discuss possible collaborative experiments.

**The Role of Brain Stress Peptides in Drug Addiction and Anxiety Disorders (Opal)**

**Annie Whitaker**

Corticotropin Releasing Factor (CRF) and other brain stress peptides have been implicated in the development of alcohol dependence. The purpose of the symposium is to 1) provide an overview of the co-morbidities of stress and addiction and 2) identify neural mechanisms leading to the development of addiction. Dr. Navarro-Thiele will discuss the role of the melanocortin and opioid neuropeptides in binge alcohol intoxication. Dr. Lopez will describe the effect of chronic alcohol intoxication on CRF stress systems. Dr. Zorrilla will discuss the importance of timing when examining changes in brain stress systems and anxiety-like behaviors during withdrawal from alcohol.

**Interaction Between Melanocortin and Opioid Neuropeptides in the Modulation of Binge-Like Ethanol Drinking in C57BL/6J Mice - Montserrat Navarro-Thiele**

The central polypeptide precursor proopiomelanocortin (POMC) gives rise to beta-endorphin, an endogenous opioid peptide, and the melanocortin (MC) peptides including alpha-melanocyte stimulating hormone. Opioid receptor antagonists, such as naltrexone (NAL), have been demonstrated to reduce ethanol consumption in rodents, and a growing body of

evidence indicates that MC receptor agonists blunt ethanol intake. Interestingly, central opioid and MC pathways have been demonstrated to interact in their modulation of nociception and feeding behavior. Since opioids and MC peptides modulate ethanol consumption, the goal of this talk is to present data showing that MC and opioid neuropeptide systems interact synergistically in the modulation of binge-like ethanol drinking. We used drinking in the dark procedures, an established model of binge-like ethanol drinking, to first established dose-response effects of intraperitoneally (i.p.) injected NAL or the MC agonist MTII (0, 0.3, 3.0, and 10 mg/kg for each drug) on binge-like drinking. Based on these data, we established the ED20 and ED30 for each drug, and then combined the low (ED20) and high (ED30) dose of each drug with the dose-response range of the other drug. Results showed that MTII was 3.4-fold more potent than NAL in blunting binge-like ethanol drinking (based on ED50 values). MTII was also more effective, as the 10 mg/kg dose of MTII produced a 72% reduction of binge-like ethanol drinking while this same dose of NAL reduced drinking by only 49%. When administered in combination, the low ED20 (but not the ED30) dose of MTII (0.26 mg/kg) shifted the NAL dose-response curve to the left by a factor of 7 (i.e., NAL was 7-fold more potent when administered in combination with MTII relative to when it was administered alone). Subsequent isobolographic analyses of these data showed that MTII synergistically augmented the ability of NAL to blunt binge-like ethanol drinking. NAL shifted the MTII dose effect curve to the left, but this effect was additive. The present results show that a low dose of MTII synergistically potentiates the ability of NAL to blunt binge-like ethanol drinking. These observations suggest that MC receptor agonists may improve the therapeutic effectiveness of NAL in the treatment of alcohol abuse disorders when these drugs are given in combination. This presentation will show: that the opioid receptor antagonist naltrexone (NAL) protects against binge-like ethanol drinking in C57BL/6J mice; the melanocortin (MC) receptor agonist melanotan-II (MTII) protects against binge-like ethanol drinking in C57BL/6J mice; and that MTII synergistically augments the effectiveness of NAL in blunting binge-like ethanol drinking.

**Chronic Intermittent Ethanol Exposure Induces High Levels Of Voluntary Ethanol Intake and Changes in CRF Systems in C57BL/6J Mice - Marcelo F. Lopez**

Several studies have shown that repeated cycles of chronic intermittent ethanol (CIE) exposure reliably produces escalation of voluntary ethanol drinking in C57BL/6J mice. Additional studies have demonstrated that repeated cycles of CIE exposure constitutes a potent stressor itself, producing dysregulations in stress and reward circuits, which, in turn, impact not only stress responsiveness but also drives/promotes excessive levels of drinking. This presentation will show that repeated experience with ethanol intoxication and withdrawal results in elevated voluntary ethanol intake and alters stress responsiveness in mice.

**Anxiety-Like Behavior and Changes in CRF and NPY Systems of Rats During Withdrawal from Chronic Intermittent Ethanol Exposure: Timing is Everything - Eric Zorrilla**

Neuroadaptive changes induced by chronic ethanol use have been implicated in affective symptoms of withdrawal and in the long-lasting vulnerability to relapse drinking during abstinence. Recent studies by ourselves and others have supported the hypothesis that dysregulation of stress-regulatory extrahypothalamic corticotropin-releasing factor (CRF) and neuropeptide Y (NPY) systems are consequences of chronic ethanol use that may contribute importantly to symptoms and the perpetuation of addictive behavior via negative reinforcement mechanisms. Protracted abstinence has most often been conceptualized as a waning persistence of symptoms and neurochemical changes associated with

acute ethanol withdrawal. Here, instead, we present data on anxiety-like behavior and extrahypothalamic CRF and NPY systems of rats which support the hypothesis that protracted abstinence is discontinuous from acute withdrawal not only in time course, but also in the specific molecular changes associated with the different phases of abstinence. Molecular neuroadaptations that are uniquely seen in animal models of protracted abstinence may be therapeutically relevant for the heightened relapse risk seen in human alcoholics months after the cessation of drinking. Following this presentation viewers will: become familiar with the hypothesized role of negative reinforcement (“self-medication”) in relapse behavior; distinguish between acute withdrawal and protracted abstinence phases of the addiction cycle; become familiar with animal models of anxiety-like behavior used to model negative emotional symptoms of withdrawal; identify changes in expression of CRF or its receptors in the amygdala, nucleus accumbens, or dorsal raphe during acute or late protracted withdrawal from ethanol; and identify changes in expression of NPY or its receptors in the amygdala or nucleus accumbens during acute or late protracted withdrawal from ethanol.

### **The Rewarding Effects of Alcohol are Enhanced in Female Versus Male Rats - Laura O’Dell**

This study compared sex and age differences to the rewarding and aversive effects of alcohol using place-conditioning procedures in rats. Separate groups of adolescent, adult, female, male, and female ovariectomized (OVX) rats received alcohol (0, 0.5, 1.0, 2.0 or 2.5 mg/kg; ip) and were confined to their initially non-preferred side of our conditioning apparatus for 30 minutes. On alternate days, they received saline and were confined to the other side. Following conditioning, rats were re-tested for their preference. Separate cohorts of rats were injected with the same dose range of alcohol and bloodalcohol levels (BALs) were compared 30 min later. The results revealed that ethanol produced an inverted U-shaped dose-response across all groups. An intermediate dose of alcohol (1.0 mg/kg) produced rewarding effects in female but not male or OVX female rats, suggesting that ovarian hormones facilitate the rewarding effects of alcohol. Similarly, this intermediate dose of ethanol produced greater rewarding effects in adolescent female versus male rats. The highest dose of alcohol (2.5 mg/kg) produced aversive effects that were similar across all adult groups. However, the aversive effects of this high dose of alcohol were lower in adolescents, suggesting that young rats are less sensitive to the aversive effects of alcohol. In general, the behavioral effects of alcohol did not vary across the estrous cycle in intact adult females. There were also no group differences in BALs, suggesting that our findings are not due to sex differences in alcohol metabolism. Taken together, our results suggest that females are more vulnerable to alcoholism due to enhanced rewarding effects of alcohol that are mediated by the presence of ovarian hormones.

### **Bridging the Gap between Policymakers and Researchers to Reduce Behavioral Health Services Disparities (Crystal 1)**

#### **Benjamin Lê Cook**

We present four papers to answer policymakers’ call for readily useable information to inform disparity reduction initiatives. The first paper estimates the monetary value of reducing behavioral health care disparities by measuring how expenditures used to reduce disparities in outpatient behavioral health care and psychotropic drug use will be offset by reductions in acute care expenditures. The second paper presents findings from focus groups and interviews with state policymakers on the advantages and disadvantages of state disparities report cards. The third paper assesses racial/ethnic differences in patterns of outpatient behavioral health care for youth prior to and following psychiatric emergency or inpatient treatment. The fourth paper examines disparities in residential and outpatient substance abuse treatment completion among

adolescents.

### **Estimating the Monetary Value of Reducing Behavioral Health Care Disparities - Benjamin Lê Cook**

Behavioral health care disparities are usually cast as an equity concern. However, given spiraling health care expenditures, efficiency concerns and cost reduction have become central in policy discussions. We test the hypothesis that reducing disparities may actually reduce overall health care expenditures via medical cost offsets. Using longitudinal data in the 2004-2009 MEPS, we estimate the offset effect of eliminating disparities on acute physical and mental health care expenditures. Preliminary results show that among individuals screening positive for mental illness, every new Latino initiating behavioral health care contributes an average of \$211 in savings to inpatient mental health care expenditures. Reducing Latino-white disparities in initiation of behavioral health care would thus result in significant savings to the health care system.

### **Policymakers Views on State-by-State Behavioral Health Care Disparities Report Cards - Margarita Alegría**

Efforts to reduce identified behavioral health care disparities among racial and ethnic minorities have been hindered by the mostly descriptive nature of disparities research. Increasingly, state policymakers and advocates are calling for readily accessible and useable information to inform policy initiatives. This paper discusses the advantages and disadvantages linked to using mental health care disparities report cards to grade states on equity and distribution of mental health care. It also identifies the predictors of disparities that should be included to develop policies to address them. The development of the report card, informed by qualitative interviews with key state policymakers and rigorous quantitative methods will be described as well as implicit challenges associated with report card methodology and translational research implementation.

### **Racial/Ethnic Differences in the Quality of Outpatient Behavioral Health Treatment for Youth Following Inpatient and Emergency Care - Nicholas Carson**

We describe the quality of outpatient behavioral health care received by youth after inpatient or emergency psychiatric treatment. National standards expect timely follow-up following inpatient discharge, but disparities in the adequacy of such treatment episodes are unknown. We analyze 1996-2009 MEPS data to assess adequacy of follow-up for white, black, and Latino youth (n=242), applying the IOM’s disparities definition. Fewer black youth received adequate, or any, treatment following inpatient discharge. Adequate treatment was comparable among Latino and white youth. After adjustment for prior outpatient care, Latino youth were more likely to receive adequate inpatient follow-up. There were no differences in adequacy following emergency treatment. This study reveals disparities in the quality of outpatient treatment for black youth following inpatient care.

### **Explaining Racial/Ethnic Disparities in Adolescent Substance Abuse Treatment Completion in the United States: A Decomposition Analysis - Brendan Saloner**

This study uses national discharge data to investigate racial/ethnic disparities in substance abuse treatment completion among adolescents. Non-linear decomposition assessed the contributory role of demographics, substance use history, socioeconomic status, and geography. Compared to whites, blacks and Hispanic youth were significantly less likely to complete treatment for alcohol, marijuana, and other drugs. Native Americans and Asians were not statistically different than whites for all substances. In decomposition analysis we could not explain white-black gaps using the study variables, but we could explain between 11.3% and 38.3% of the white-Hispanic gap. Region and service setting explained the largest portion of the gap. Future research should examine mechanisms leading to dropout among minorities. National policies could target access to inpatient treatment.

### **Implementation and Impact of Organizational Cultural Competence in Substance Abuse Treatment for Latinos (Crystal 2)**

#### **Erick Guerrero**

The substance abuse treatment (SAT) system faces an unprecedented challenge to reduce health disparities among low-income Latinos. Implementing culturally and linguistically responsive practices are suggested to reduce these disparities. However, there is limited research examining the capacity of SAT programs to implement these practices, and to assess their impact on treatment outcomes. The SAT system struggles with unstable funding, passive leadership, high staff turnover, and limited technical resources for clinical operations and effective decision making. Using nationally and regionally representative studies, this breakout session will provide a comprehensive examination of how these organizational factors may improve the effective uptake of culturally and linguistically responsive practices. Preliminary findings provide an evidentiary base for the use of cultural competence to improve treatment access, retention and completion among Latinos. Questions to be answered during this session include how do the findings from each of the studies presented contribute to the evidence base relevant to the implementation process of culturally responsive care among SAT organizations, and what are implications of findings from these studies for developing organizational capacity in community-based SAT settings to improve standards of care for racial and ethnic minority populations? During this session participants will learn about the organizational factors necessary to serve the cultural and linguistic service needs of Latinos in substance abuse treatment, and will understand how management and organizational factors enable programs to offer culturally responsive care for Latinos, which in turn may improve their treatment outcomes, such as access, retention and completion.

### **Cultural Competence in Outpatient Substance Abuse Treatment: Measurement and Relationship to Wait Time and Retention - Tina Kim**

Culturally competent practice is broadly acknowledged to be an important strategy to increase the quality of services for racial/ethnic minorities in substance abuse treatment. However, few empirically derived measures of organizational cultural competence exist, and relatively little is known about how these measures affect treatment outcomes. Method: Using a nationally representative sample of outpatient substance abuse treatment (OSAT) programs, this study used item response theory to create two measures of cultural competence—organizational practices and managers' culturally sensitive beliefs—and examined their relationship to client wait time and retention using Poisson regression modeling. The most common

and precisely measured organizational practices reported by OSAT managers included matching providers and clients based on language/dialect; offering cross-cultural training; and fostering connections with community and faith-based organizations connected to racial and ethnic minority groups. The most culturally sensitive belief among OSAT managers was support for language/dialect matching for racial and ethnic minority clients. Results of regression modeling indicate that organizational practices were not related to either outcome. However, managers' culturally sensitive beliefs were negatively associated with average wait time ( $p < 0.05$ ), and positively associated with average retention ( $p < 0.01$ ). Conclusions: Managers' culturally sensitive beliefs—considered to be influential for effective implementation of culturally competent practices—may be particularly relevant in influencing wait time and retention in OSAT organizations that treat Latinos and African American clients. Following this session, participants will learn strategies and methodologies to effectively measure organizational cultural competence in substance abuse treatment organizations; and will understand when culturally responsive practices associate with quality of care increasing treatment access and retention for Latinos and African Americans.

### **The Role of Leadership and Readiness for Change in the Implementation of Cultural Competence in Community-Based Substance Abuse Treatment -Ahraemi Kim**

Leaders of addiction treatment organizations face significant challenges to implementing cross-culturally competent practices due to their low readiness to respond to the rapid changes in client demographics in the U.S. health care industry. This study aimed to evaluate the organizational capacity of addiction treatment organizations in Los Angeles, California, to implement cross-culturally competent practices. Using a randomly selected sample of 122 organizations located in racially and ethnically diverse communities, we relied on structural equation modeling to validate measures and identify relationships between leadership capacity, organizational readiness for change, and implementation of three cross-culturally competent practices. A path analysis was initially fit with these three constructs measured as composite measures. A second full structural model accounted for measurement errors and tested the mediational role of readiness for change in the relationship of leadership capacity with five sub-domains of cross-cultural competence. Results: All measures reported adequate Cronbach's alphas—leadership capacity ( $\alpha = .943$ ), readiness for change ( $\alpha = .932$ ) and cross-culturally competent practices ( $\alpha = .893$ ). In addition, the hypothesized path analysis model fit the data well ( $\chi^2 = 312.029$ ,  $p < .000$ , CFI = .806, TLI = .695). Significant associations were found between leadership, readiness for change, and cross-culturally competent practices using composite measures. However, when fitting the full structural model, leadership capacity was only associated with one dimension of cross-cultural competence: staff personal involvement. Conclusions/Implications: By building resources and adjusting attitudes for change among staff, leaders are able to promote staff involvement in minority communities. Implications for future research include identifying specific managerial strategies to sustain implementation efforts of other cross-culturally competent practices and evaluate their impact on client treatment outcomes. Participants for this presentation will learn when leadership and organizational readiness for change prepare treatment organizations to implement different dimensions of culturally and linguistically responsive care; and will acknowledge the measurement and analytic considerations when evaluating treatment organizations' capacity to implement innovative practices and enhance standards of care for bilingual and bicultural Latinos.

### **Cultural and Linguistic Competence: Program Impact on Latinos' Completion of Mandated Substance Abuse Treatment - Michael Campos**

Culturally and linguistically responsive program practices may improve substance abuse treatment outcomes among Latinos. Yet, little is known about whether individual practices or culturally and linguistically responsive context increases Latinos' successful completion of mandated treatment. This study examined culturally responsive program practices' contribution to completion of mandated drug treatment after controlling for other program- and individual-level factors. Data for the current study came from two sources: client-level data from the California Outcome Measurement System (CalOMS) and program-level data from a survey designed and distributed in 2008. The survey was completed by 67 of 105 programs serving clients mandated to treatment under California's Substance Abuse and Crime Prevention Act (SACPA). We restricted CalOMS data to the first treatment episode for Latino clients admitted and discharged in fiscal year 2007-2008. Treatment completion was dichotomized into: (a) clients who successfully completed treatment on-site, or were transferred to another treatment program, and (b) those who left treatment with satisfactory progress, left with unsatisfactory progress, or did not complete treatment. This approach is consistent with the most recent regional (Jacobsen et al., 2007) and national studies (SAMHSA, 2009). Using multi-level logistic regressions with random intercept models, which accounts for the hierarchical nature of the data, we examined associations between culturally responsive practices, program-level factors, and some individual-level factors with successful treatment completion. The final sample analyzed was comprised of 5,150 Latino clients nested within 48 treatment programs. Two models were analyzed. The first examined a composite measure of culturally responsive practices and the second examined culturally responsive practices individually. Results: Results indicated that homelessness (OR = 0.58; CI = 0.39 - 0.85) and a high frequency of drug use at intake (OR = 0.98, CI = 0.97 - 0.99) were associated with decreased odds of treatment completion among Latinos. A composite measure of culturally responsive practices was associated with increased odds of treatment completion (OR = 1.13; CI = 1.02 - 1.26). Furthermore, one specific practice, providing treatment-related materials in Spanish, was associated with increased treatment completion (OR = 2.09; CI = 1.11 - 3.93). Outpatient treatment modality was associated with decreased treatment completion (OR = 0.52; CI = 0.35 - 0.76) This study highlights the importance of developing a culturally and linguistically responsive context to support recovery among Latinos in mandated substance abuse treatment. These preliminary findings suggest that concrete practices such as offering material in Spanish may improve treatment adherence within this population at high risk of treatment dropout. Participants will learn about the multilevel nature of culturally responsive treatment by understanding how program practices impact client level outcomes (treatment completion) and will understand areas of intervention examining when cultural competence, as a comprehensive approach or a single practice may support Latinos' efforts to complete treatment successfully.

### **Basic and Clinical Evidence of Biomedical Consequences of Alcohol, and Drugs of Abuse in HIV/AIDS (Topaz)**

#### **Maria Jose Miguez**

Alcohol and drugs of abuse have been demonstrated to alter host response to human immunodeficiency (HIV) infection; by affecting progression of infection, tissue injury, and time to death. The biomedical consequences of alcohol and drug abuse extend beyond their neurobehavioral interactions. This breakout will consist of presentations focused on basic, translational and clinical studies aimed at understanding the mechanisms involved in the interaction between HIV/AIDS and alcohol and drugs of abuse. Pre-clinical studies will examine

the behavioral sensitization induced by methamphetamine in the presence of HIV infection, and the role of oxidative stress in their interaction. Translational studies including neuropsychological testing, neuroimaging techniques, cerebrospinal fluid analyses, and genotyping as they are integrated to evaluate brain abnormalities associated with the independent and combined effects of stimulants (i.e., cocaine, methamphetamine, nicotine) will be presented. Finally, the possibility that poor neuropsychological outcomes may predominate in some racial/ethnic groups will be discussed.

### **Alcohol, Drugs of Abuse & HIV/AIDS; Beyond Risk Factors - Patricia Molina**

The two most commonly used and abused drugs are the cannabinoids and alcohol. Alcohol use disorders frequently coexist with infection. Cannabinoid use is frequent in HIV-infected individuals, both as a recreational agent and a therapeutic adjuvant, in its synthetic form of  $\Delta^9$ -tetrahydrocannabinol. Drugs of abuse have been demonstrated to alter host response to human immunodeficiency (HIV) infection; by affecting progression of infection, tissue injury, and time to death. The biomedical consequences of alcohol abuse are multi-systemic. While considerable advances have been made in our understanding of alcohol-induced injury of hepatic, behavioral, and neural substrates; the metabolic consequences of chronic alcohol abuse have been previously neglected. Cannabinoids, the principal chemical constituents of marijuana, exert neurobehavioral effects and in addition have the potential of affecting the immune system. Viral entry, integration and replication, and cell injury involve numerous cellular signaling and effector mechanisms determining the overall systemic response to the infection. The multiplicity and interconnectedness of factors cannot be effectively reconciled using isolated organ, cellular, or molecular approaches. Using an integrated systems biology analysis our studies have identified salient cellular and molecular signatures prevailing during the infection and their modulation by chronic alcohol and cannabinoid administration in the Simian Immunodeficiency Virus (SIV)-infected rhesus macaque. Our findings suggest that chronic alcohol and cannabinoid administration differentially modulate key interconnected and tissue-specific mechanisms responsible for control of disease progression. The systemic pathophysiological effects of alcohol have been identified to adversely affect the course and progression of HIV infection. The significant multi-systemic pathophysiological mechanisms including; but not limited, to nutritional, metabolic, oxidative, and disruption of neuroendocrine pathways have all been implicated as modulators of disease progression. In contrast, our data suggests that cannabinoids may exert an overall protective effect. Although these effects are multisystemic, specific organ systems have been identified to be central to disease progression; including the central nervous system, the immune system, and gut mucosa. We hypothesize that the contrasting disease phenotype resulting from chronic alcohol and cannabinoid administration to SIV-infected non-human primates provides a unique opportunity for systems biology analysis of the epigenetic, genetic, and proteomic profiles prevailing during SIV infection that are translatable to HIV disease progression. Following this presentation the audience should be able to contrast the impact of alcohol and cannabinoids on HIV/AIDS disease progression; to identify the salient mechanisms impacted by alcohol and cannabinoids that modulates disease progression; and understand the relevance of an integrated systems approach to dissecting the impact of alcohol and drugs of abuse on HIV disease progression

### **Methamphetamine Induced Neuronal Plasticity in HIV-1 Transgenic Rats: From Molecules to Behavior - Sulie Chang**

Methamphetamine (METH) addiction is prevalent among individuals with HIV infection. Our central hypothesis is that METH-induced neuronal plasticity is one of the mechanisms underlying HIV positive individuals' addictive prone to METH use and to the development of METH dependence. Using HIV-1 transgenic (HIV1-Tg) rat and its strain control, F344 rat, METH has been shown to induce a progressive increase in stereotypical head movement in both F344 and HIV-1Tg rats; however, this behavior sensitization is greater in HIV-1Tg rats than in F344 animals. The brain/body weight ratio is significantly lower in METH-treated HIV-1Tg rats compared to F344 controls. Expression of dopamine receptor type 1 (DA1R) is greater in the prefrontal cortex of HIV-1Tg rats than F344 rats, and is attenuated by METH. In addition, the effects of HIV-1transgenesis and METH treatment on the glutathione (GSH)-entered antioxidant system and oxidative stress in the brain have been shown to be additive and interactive and brain region specific. These studies show that METH-induced behavioral sensitization is greater in the presence of HIV infection, and suggest that D1R expression in the prefrontal cortex and the alteration of GSH-entered antioxidant system and oxidative stress may be involved in development of METH addiction in HIV positive individuals This presentation will inform the audience about the methamphetamine-induced neuronal plasticity, from molecules to behavior; demonstrate how HIV-1 infection could enhance methamphetamine-induced detrimental effects.; and inform the audience that activation of neuroinflammation may contribute addiction neurobiology.

### **Combined and Independent Effects of Stimulants and HIV on the Brain - Linda Chang**

HIV infection and stimulant abuse can both lead to brain changes and cognitive deficits. A comprehensive approach, using neuropsychological testing, neuroimaging techniques (including MRI and PET), cerebrospinal fluid (CSF) analyses and genotyping were used to evaluate brain abnormalities associated with the independent and combined effects of stimulants (i.e., cocaine, methamphetamine, nicotine). Cognitive performance, neurometabolites and various neurochemicals (using proton magnetic resonance spectroscopy), morphometry (using structural MRI) and microscopic brain structures (using diffusion tensor imaging) all showed independent and combined (additive or interactive) effects of HIV and stimulant dependence on the brain. Additional data evaluating CSF markers and specific genotypes in relation to these brain abnormalities also will be presented. This presentation will allow the audience to learn which neurocognitive domains are affected by HIV, chronic stimulant abuse or the combination of both conditions; to learn how the brain is affected by either HIV infection, stimulant dependence, or both of these conditions, using neuroimaging techniques; and to learn about possible contributions of neuroinflammation, as assessed from CSF biomarkers, or particular genotypes, to brain injury in these conditions.

### **Cognitive Function in Hispanics, African Americans and Caucasians Receiving HAART. Are Inequalities Associated with Biological Differences? - Maria Jose Miguez**

Despite expectations that (HAART) will withhold HIV associated neurological disorders (HAND), they remain highly prevalent, albeit attenuated in severity.1-5 Even attenuated, HAND still is one of the most feared complications since HAND is so closely correlated to morbidity and mortality risks. Therefore, reassessing neuropathological mechanisms and underlying risk factors is a contemporary challenge in the field of HIV medicine, particularly since many factors identified in the pre-HAART era as relevant to HAND, no longer relate to its development and/or progression. 6-10 The present study was geared toward determining three main factors: 1) the variance

of these outcomes by race/ethnicity in a multi-ethnic cohort of persons living with HIV and; 2) the association of alcohol and pro-inflammatory immune response with cognitive outcomes. Participants included 400 PLWH, recruited from Miami Health Care Clinics since 6/10- 6/11. All subjects underwent a blood draw, and completed standardized research questionnaires. Neuropsychological status was measured using a comprehensive two hour NP battery that taps multiple cognitive-motor domains, and assesses mood disorders, as well as daily functioning. The proposed neuropsychological (NP) testing battery has been carefully selected to follow national guidelines to test PLWH. Given the number of participants whose primary language is not English, we have selected a battery validated in both English and Spanish and where language has limited effects. Evaluations were conducted in either English or Spanish, based on the participant's opinion of which language would yield the best performance. Given the relevance of inflammation on HAND, blood was obtained to evaluate HIV parameters and a cytokine profile in a subset of these individuals. Although precise comparisons of cognitive status are clearly difficult for populations with different educational backgrounds, Hispanics do appear more likely to experience cognitive impairments than other ethnic groups. No significant differences in sociodemographic characteristics were observed across the groups and did not supersede the effect of ethnicity. Since in prior studies ethnic minority groups displayed a greater emphasis on accuracy, rather than time, we examined these patterns. While Hispanics and African Americans took more time to complete the task than the Caucasians, we did not observe race/ethnic differences in time orientation vs. accuracy (errors, intrusions), rejecting this hypothesis. Notably, differences were more evident among hazardous alcohol users highlighting its relevance. Since our prior work has documented that HAU up-surges the inflammatory response, we compared the profile of cytokines in the different groups. Several cytokines examined differed between Hispanics, African Americans and Caucasians, however just few were associated with cognitive performance. Nevertheless, these cytokines may help to identify immune phenotypes, underlying race disparities, and provide new targets to modify the risks of certain groups.

### **Testing An Adapted Evidence-Based HIV Prevention Intervention In A Clinical Setting - Michael Copenhaver**

Existing evidence-based HIV risk reduction interventions have not been designed for implementation within clinical settings where many high-risk drug users seek treatment services. We therefore systematically developed an adapted, significantly shortened, version of a comprehensive evidence-based intervention called the Community-friendly Health Recovery Program (CHRP) which has demonstrated preliminary evidence of efficacy in a feasibility/acceptability study already published. We conducted a randomized controlled trial (RCT) to test the efficacy of the CHRP intervention among high risk drug users enrolled in an inner-city methadone maintenance program. We hypothesized that patients assigned to the CHRP intervention condition would demonstrate greater HIV risk reduction outcomes compared with those assigned to the active control condition. Participants were 280 HIV-negative opioid-dependent patients enrolled in a methadone maintenance program who reported sex- or drug risk behavior. Participants were randomly assigned to the CHRP intervention (n = 136) or the active control condition (n = 144) and were assessed at Pre-intervention, Postintervention, 3-month, 6-month, and 12-month time points. Approximately 20% of participants identified themselves as English-speaking Hispanic or Latino. Significant differences were found between the Intervention and Control groups with regard to key drug-risk reduction (i.e., safer drug use behavior, improved drug-risk reduction skills) and sex-risk reduction (i.e., obtaining condoms, self-efficacy in using condoms) variables. Support was also found for the Information-Motivation-Behavioral Skills

model of health behavior change. Our RCT demonstrates the HIV risk reduction efficacy of the CHRP intervention even when implemented in an inner-city drug treatment setting.

### **Hispanic Injection Drug Users Living in the U.S.-Mexico Border Region have Higher Perceived Risk of HIV/AIDS than Non-Hispanics - Fátima A. Muñoz**

In the U.S., 17% of people living with human immunodeficiency virus (HIV) and the majority of hepatitis C virus (HCV) infections are among injection drug users (IDUs). In Southern San Diego County, which shares a border with Tijuana, B.C., Mexico, Hispanics comprise 64% of residents and account for 73% of AIDS cases. Cultural and socio-economic factors such as poverty, low educational attainment, disparities in health care and drug treatment utilization, could influence Hispanic IDU's risk behaviors and perceptions of risk to HIV infection. We compared perceived risk of future HIV infection, socio-demographic factors, drug use patterns and injection risk behaviors between HIV-negative Hispanic and non-Hispanic IDUs living in San Diego. San Diego residents, age 18-40 years who had injected illicit drugs within the previous 6 months were recruited in 2009-2010 for behavioral risk assessment interviews and HIV testing. Bivariate and multivariate logistic regression analyses were used to identify differences in perceived risk of HIV infection from injecting drugs between Hispanic and non-Hispanic HIV-negative IDUs. Of 528 HIV-negative IDUs, 73% were male, their mean age was 28 years, 96% were born in the U.S., and 146 (27%) self-reported as Hispanic or Latino. Compared to non-Hispanics, Hispanics were more likely to perceive themselves very/somewhat likely to become HIV infected from injecting drugs in the next 3 months (16% vs. 7%,  $p=.002$ ); have less than high school education (81% vs. 60%,  $p<.001$ ); have a personal income of less than \$10,000/year (87% vs. 76%,  $p=0.005$ ); first injected at a younger age (19.7 years, standard deviation [SD]=5 vs. 22 years,  $SD=9$ ,  $p=.006$ ); and injecting most often in someone else's home (30% vs. 20%,  $p=.019$ ). Hispanics were less likely to know about (68% vs. 79%,  $p=.012$ ) or use (40% vs. 50%,  $p=.05$ ) the local syringe exchange program than those non-Hispanics. There were no significant differences in drug use patterns, injection risk behaviors and health outcomes. In the multivariate analysis, Hispanics had an increased odds of perceiving themselves very/somewhat likely to become HIV infected from injecting drugs (adjusted odds ratio [AOR]= 2.18; 95% Confidence Interval [CI]: 1.16-4.10), after adjusting for income (AOR=1.89; 95% CI: 1.05-3.40), education (AOR=2.65; 95% CI: 1.61-4.36), and injecting most often in someone else's home (AOR= 1.72; 95%CI: 1.03-2.87). HIV-negative Hispanic IDUs were more likely to perceive themselves at high risk for HIV infection through injection drug use in the next 3 months than non-Hispanic IDUs, despite the fact that their drug use and injection practices were similar. Further research with Hispanic IDUs is necessary to examine acculturation processes and its effects on their perceptions of risk to HIV infection that significantly influence risk behaviors. Interventions are needed to increase utilization of syringe exchange and decrease injection risk behaviors among Hispanic IDUs.

**Friday 28 September 2012**

9:30 AM–11:45 AM

NEW INVESTIGATORS IN DRUG ABUSE RESEARCH  
(Crystal)

### **Alice Cepeda**

The Early Career Leadership Panel will be a series of presentations from young scientists focused on the problem of Hispanic Drug use. Panelists will present data that will be prepared in collaboration with senior members of the organization. The panel is interactive and the young investigator panelists will also gain knowledge in how to prepare data for a professional presentation. The panel will be followed by a question and answer session where the learners will be able to ask pertinent questions. Each panelist will describe their findings and the implications of their work for Hispanic drug addiction. The learner is expected to leave with a better understanding of the biological or applied areas of drug abuse. The learning objectives for this session include: increase knowledge of biological effects of drug abuse (e.g., the role of stress and/or dopamine systems in animal models of drug addiction); increase knowledge of social and environmental influences on Hispanic drug use (e.g., the role of protective factors such as parental influences, economic status, and peer influences; and increase knowledge of various factors that lead to drug abuse vulnerability (e.g., gender, occupation, migration status, and community factors). The participants will present the material in a manner so that a test could be administered and the participants' knowledge could be assessed with questions that would be answered correctly. Panelists are encouraged to present the theoretical constructs as well as the implications of their work for the learners.

### **$\alpha 5$ -Containing Nicotinic Receptors Affect the Manifestations of Alcohol Withdrawal - Erika Perez**

Alcohol dependence has enormous and deleterious health, economic, and societal consequences. An increasing number of preclinical data provides evidence that nicotinic acetylcholine receptor (nAChR)-mediated signaling plays a critical role in ethanol drinking behavior. Gene target studies have recently suggested a strong correlation between the CHRNA5-CHRNA3-CHRNA4 gene cluster and both alcohol and nicotine dependence. Because our lab has shown that the  $\alpha 5$  nAChR subunit plays an important role in nicotine withdrawal, we tested the hypothesis that this receptor subunit is also involved in alcohol withdrawal. The  $\alpha 5$  subunit is expressed in the medial habenula (MHb) and the interpeduncular nucleus (IPN), and we hypothesized that the MHb/IPN axis plays a role in regulating the affective and somatic signs induced by alcohol withdrawal. Wild type and  $\alpha 5$  null mice received chronic ethanol treatment by either daily ethanol injections or 6 weeks of liquid diet. Mice were tested in a battery of tests to investigate the effects of the  $\alpha 5$  null mutation on ethanol withdrawal affective behaviors. In addition, we examined somatic signs of withdrawal. To examine the specific role of the MHb/IPN axis, wild type and  $\alpha 5$  null mice were injected with lentiviral vectors to re-express the  $\alpha 5$  nAChR into the MHb or IPN. After two weeks, mice were placed on a 6 week liquid ethanol diet. Withdrawal behaviors were measured as previously described. Unlike their wild type littermates,  $\alpha 5$  null mice did not exhibit increases in anxiety-like behavior during ethanol withdrawal. In addition,  $\alpha 5$  null mice did not exhibit somatic signs of ethanol withdrawal. The latest findings of the re-expression studies will be presented. Overall our data suggests that  $\alpha 5$ -containing nAChRs play a role in the manifestation of affective and somatic signs during ethanol withdrawal. Our data also highlight the role of the MHb/IPN as an important circuit for alcohol withdrawal. Overall these results highlight possible drug targets for alcohol cessation therapies.

### **Early Methylphenidate Exposure (Postnatal Days 11-20) Shifts Adolescent Nicotine-Induced Conditioned Preference in Male and Female Rats - Arturo R. Zavala**

The psychostimulant methylphenidate is the most widely prescribed drug for children diagnosed with Attention Deficit Hyperactivity Disorder. Although The Federal Drug Administration has not approved the use of methylphenidate in preschool-age children (~3-5 years), the use among this young population has dramatically increased within the past years. Surprisingly, the long-term consequences of early methylphenidate administration—including those associated with later drug experimentation—are not well understood. In rats, it has been demonstrated that early exposure to methylphenidate alters the reward-value associated with various drugs of abuse when animals are tested as adults. To date, however, no studies have tested the impact of early methylphenidate treatment on nicotine reward behavior during adolescence. In this study, using an 8-day conditioned place preference (CPP) procedure, we investigated the effect of early methylphenidate pretreatment on nicotine-induced CPP in early (postnatal days (PDS) 27-34) and late (PD 41-48) adolescent rats. Male and female Sprague Dawley rats were treated twice daily with methylphenidate (0, 2, or 4 mg/kg) from PDS 11-20. Rats were then assessed for nicotine-induced CPP beginning on PD 27 (early adolescence) or PD 41 (late adolescence). During days 1 and 8 of the CPP procedure, rats were tested for their baseline and final place preference, respectively, in 15-minute sessions. During days 3-6, subjects were conditioned 30-minutes a day with either 0.2 mg/kg of nicotine or saline on alternating days. Results showed that in males, early methylphenidate enhanced nicotine-induced CPP, but the effect varied by dose of methylphenidate pretreatment and age of testing. Specifically, pretreatment with 4 mg/kg methylphenidate increased nicotine-induced CPP when animals were tested only during early, but not late adolescence. In females, early methylphenidate pretreatment attenuated nicotine-induced CPP regardless of dose, as only control female rats exhibited nicotine-induced CPP during early adolescence. The present data adds to a growing body of evidence that early methylphenidate alters the rewarding value of various drugs of abuse.

### **The Effects of Prenatal Cocaine on Adult Cognition, Spine Density and Neurogenesis - Kaliris Y. Salas-Ramirez**

Cocaine exposure during pregnancy can impact brain development and have long-term behavioral consequences. These studies examined the lasting consequences of prenatal cocaine (PN-COC) exposure on the performance of cognitive tasks, dendritic spine density and neurogenesis in adult male and female rats. From gestational day 8 to 20, dams were treated daily with 30 mg/kg (ip) of cocaine HCl or saline. At 62 days of age, offspring were tested consecutively for anxiety, locomotion, visual memory and spatial memory. PN-COC exposure significantly increased anxiety in both sexes. Object recognition (OR) and placement (OP) tasks were used to assess cognitive function. Behavioral tests consisted of an exploration trial (T1) and a recognition trial (T2) that were separated by an inter-trial delay of varying lengths. Male PN-COC subjects displayed significantly less time investigating new objects or object location during T2 in both OR and OP tasks. By contrast, female PN-COC subjects exhibited impairments only in OR and only at the longest inter-trial delay interval. At 74 days of age animals were euthanized and spine density was quantified. Gestational cocaine increased dendritic spine density in the prefrontal cortex and nucleus accumbens in both genders, but only females had increased spine density in the CA1 region of the hippocampus. In a second experiment, PN-COC males and females were injected with bromodeoxyuridine from day 61 to 63 days of age. At 91 days of age animals were euthanized and the numbers of new born cells in the dentate gyrus of the hippocampus were quantified. These data reveal that in-utero exposure to cocaine

results in enduring alterations in anxiety, cognitive function and spine density in adulthood. Moreover, cognitive deficits were more profound in males than in females. These data will also contribute to understanding how gestational cocaine exposure can impact adult neurogenesis

### **Patterns and Predictors of Substance Use Among Latino Migrant Men in a New Receiving Community - Meghan Althoff**

A myriad of environmental, social and individual factors are thought to increase the risk of substance use among Latino migrant populations including: increased acculturation, social isolation, lack of a social support system, and stress and anxiety. Compared to those migrating to established migration destinations, men migrating to new receiving communities likely have higher rates of drug use and binge drinking because of a lack of infrastructure and support networks. The purpose of this study is to evaluate the trends in drug use and binge drinking over 18 months in a cohort of Latino migrant men in a new receiving community and to determine environmental and individual risk factors for substance use. A cohort of 125 Latino migrant men who arrived in New Orleans after hurricane Katrina in 2005 was recruited using respondent driven sampling. They were interviewed quarterly for 18 months on their substance use in the past month and relevant covariates. Results were analyzed using generalized estimating equations (GEE) and the Cochran-Armitage test for trend. Ever use of drugs was 56.6%. Of those who used drugs, 41.6% used cocaine, 14.4% crack and 42.4% marijuana. Binge drinking was reported by 84.8% of men at least once. Both drug use and binge drinking decreased over 18 months of follow-up ( $P=0.001$  and  $P=0.005$ , respectively). Belonging to a social club was found to have a protective association with drug use and binge drinking, odds ratio (OR) and 95% confidence interval 0.37 (0.18, 0.73) and OR 0.48 (0.30, 0.75), respectively. Living with a woman had a protective association with binge drinking only, OR 0.67 (0.49, 0.91). Having 2 or more sexual partners in the past month increased the odds of drug use (OR 3.23 (1.82, 4.28)) and binge drinking (OR 2.47 (1.70, 3.59)). Sex with a female sex worker in the past month was also associated with drug use and binge drinking, OR 2.79 (2.08, 5.01) and 2.46 (1.65, 3.68), respectively. Odds of drug use, but not binge drinking, was increased with depression and employment in construction, OR 1.66 (1.00, 2.77) and 2.64 (1.73, 4.02), respectively. The strong protective association between belonging to a social club and drug use and binge drinking and between having a woman in the house and binge drinking supports the hypothesis that a lack of community attachment and social support increases the risk of substance use behaviors in Latino migrant men. Since sex and substance use behaviors were collected for the same time period, we cannot determine causality. One of the limitations of the study was power. Because this was a pilot study, the sample size was not sufficient to do multivariate GEE modeling. We were therefore unable to adjust for all potential confounders. Although this was a pilot study, our results indicate that substance abuse can be mitigated by key environmental risk factors. Interventions that promote family and community connectedness may decrease substance abuse.

### **Substance Use Implications for Sexual Abuse Experiences Among a Community Sample of Latinas - Monica D. Ulibarri**

Previous research has shown that survivors of sexual violence are more likely to develop drug addiction and alcoholism, and are less successful in completing substance abuse treatment programs. However, there is relatively little research in the area of substance use and history of sexual abuse among Latinas. This quantitative study examined self-reported sexually coercive and abusive experiences in childhood and adulthood as correlates of current drug and alcohol use among a community sample of Latina women ( $N = 204$ ), ages 18 to 34

years. It was hypothesized that after controlling for background variables, history of sexual abuse would be positively related to current drug and alcohol use. Participants were recruited from several sites of a program providing nutrition and health education services for low income women and children in the San Diego County area. Eligibility criteria were: age 18 to 34; self-identify as Latina. Eligible participants were interviewed by phone in the language of their preference (53% Spanish; 47% English). Nonparametric correlations and a series of hierarchical linear regressions were conducted to test the hypotheses. The average age of participants was 24.04 years (SD = 4.2). The majority of women identified themselves as either Mexican (61%, n = 124) or Mexican-American (33.8%, n = 69). Most of the women were either married or living with a partner (71%, n = 145), 18.6% (n = 38) were single, and 10.3% (n = 21) were separated or divorced. Linear regressions indicated significant relationships between history of sexual abuse (regardless of age of occurrence) and alcohol abuse ( $\beta = 0.19$ ,  $p < .05$ ); and drug use ( $\beta = 0.29$ ,  $p < .001$ ). When examining child and adult sexual abuse separately, there was no significant relationship between child sexual abuse and alcohol abuse ( $\beta = 0.12$ , ns), however, there was a moderate significant relationship between adult sexual abuse and alcohol abuse ( $\beta = 0.17$ ,  $p < .05$ ). In regards to drug use, there was a significant relationship with both child and adult sexual abuse ( $\beta = 0.22$ ,  $P < .01$  and  $\beta = 0.19$ ,  $p < .01$ ), respectively. Age of first occurrence of sexual abuse has important implications for the type of substance abuse outcomes among Latinas. In the current study, childhood sexual abuse experiences were more likely to be related to drug use, whereas adult sexual abuse experiences were more likely to be associated with alcohol abuse. Previous research suggests that sexual abuse survivors may have to dissociate (mentally remove themselves from a situation) or use substances in order to create distance between themselves and the memories of the violence. Substance abuse treatment programs for Latinas should routinely screen for history of abuse and incorporate treatment for trauma.

#### **Who are the Methamphetamine Users in Mexico? - María de Lourdes Gutiérrez López** *(Presentation in Spanish)*

According to the United Nations Office on Drugs and Crime (UNODC) estimations, the amphetamine-type stimulants (ETA) problem has increased worldwide, becoming the second most consumed drug. For the past ten years, Mexico has the sixth place within the countries which have the biggest amounts of seized methamphetamines. During 2008 it was also one of the countries with the highest clandestine laboratories growth reported. The use of this substance has risen in our country as well; 40% of the people who assisted to treatment centers during 2009, within 20 and 29 years old, reported methamphetamines as a impact drug. Methamphetamines are related to important public health, social and security problems. Therefore, it is necessary to explain this phenomenon in order to manage an adequate attention, identifying the methamphetamine use associated factors in Mexico. The data presented derives from the National Addiction Survey 2008. It is a home survey with national and state representativeness. It includes rural and urban populations. The housing selection was made using a systematic random sampling technique. Within the chosen homes, an adult between 18 and 65 years old and an adolescent between 12 and 17 years old were picked. A 15% maximum relative error and a 90% confidence level were considered, as well as a 2.183 design effect and an average of 1.3 interviewed persons per house. The main problem area for methamphetamine use is found in the pacific states, Hidalgo and the Federal District. The average age of onset for methamphetamine use is 19.1 years old. These users showed a stronger problem than other drug users regarding sexual abuse, depression symptoms, suicidal ideation and attempt, and higher antisocial behavior. Concerning to the social environment, it was found that methamphetamine

users report a riskier environment (drugs are sold at school, weapon threatening exists, sexual abuse and violent attacks). Mexico shares a wide border region with the USA, where the methamphetamine use is higher. This situation has had an impact in the increased use of this substance in our country, especially crystal meth. This is an important problem due to the impact that these substances have on the user's health and living conditions. This situation shows that methamphetamine users have a bigger problem than the rest of the drug users.

1:30 PM–3:30 PM

#### **PHARMACOTHERAPIES FOR ADDICTION: STATUS UPDATE, STRATEGIES & CHALLENGES** (Crystal Ballroom)

##### **Nicholas Gilpin and Diana Martinez**

The experts on this panel will provide a comprehensive update on the current status of pharmacotherapeutic development for addictive disorders. Dr. George Koob will discuss the status of new and promising pharmacotherapies that are "in the pipeline" and show promise for translation to the clinic. Dr. Richard De La Garza will discuss the strategies and challenges inherent to the translation of pre-clinical findings on potential pharmacotherapies into clinical trials. Dr. Steven Shoptaw will discuss the process of moving potential pharmacotherapies from clinical research to implementation in the community.

##### **Novel Targets for Treatment From the Dark Side of Addiction: Focus on the Brain Stress Systems: Dynorphin and CRF - George Koob**

Dysregulation of the brain emotional systems that mediate arousal and stress is a key component of the pathophysiology of addiction. Addiction is a chronically relapsing disorder characterized by a compulsion to seek and take drugs and manifestation of a negative emotional state when the drug is removed. Corticotropin releasing factor (CRF) has a key role in mediating hormonal, sympathetic and behavioral responses to stressors and the dynorphin-kappa opioid system has a key role in mediating anxiety-like and depression-like states. Activation of brain stress systems is hypothesized to be a key element of the negative emotional state produced by dependence that drives drug seeking through negative reinforcement mechanisms. The role of brain arousal-stress systems including corticotropin releasing factor and dynorphin will be explored in drug dependence with an emphasis focused on the neuropharmacological actions of these neurotransmitters in extrahypothalamic systems in the extended amygdala and ventral striatum, respectively. Compelling evidence exists to argue that the brain stress systems, a heretofore largely neglected component of dependence and addiction, play a key role in engaging the transition to dependence and maintaining dependence once initiated. A role of the brain stress systems in addiction not only provides insight into the neurobiology of the dark side of addiction but also provides novel targets for the treatment of addiction. Following this presentation the audience should understand the role of negative reinforcement processes in the conceptual framework of addiction etiology; understand the neurobiological bases of the brain stress systems; and understand the role of the brain stress systems in the compulsive drug seeking associated with addiction.

##### **Bench to Bedside - Following the Trail of Two Medications for Stimulant Dependence - Richard De La Garza**

Dozens of medications have been evaluated for cocaine- and methamphetamine-dependence. At present, the most promising appear to be Modafinil for cocaine dependence and Bupropion for methamphetamine-dependence. This talk will highlight the medications testing process including use of animal models, human laboratory studies, and outpatient clinical trials to establish both safety and efficacy of candidate compounds. This presentation will describe the multiple levels of testing that comprise the medications development process, and list examples of medications currently being evaluated for cocaine- and methamphetamine-addiction.

### Translation from Pre-Clinical to Phase I Clinical Studies in Methamphetamine Medication Development: The Case for Ibudilast - Steven Shoptaw

This presentation provides an overview of the drug development process moving from preclinical findings toward Phase I testing of medications for methamphetamine dependence (Phase Ia - first in humans; Phase Ib-first in the pathology group). References are offered regarding types and timing for communications with the Federal Food and Drug Administration in this process. Types and quality of evidence regarding safety and efficacy when developing new medications for methamphetamine dependence will be described when moving a compound from preclinical through Phase I testing. Using the example of Ibudilast, a phosphodiesterase inhibitor being evaluated in our laboratory, preliminary findings describing safety will be presented in grouped, blinded fashion. The project uses a within-subjects design to conduct interaction safety challenges of two doses of methamphetamine (15 mg and 30 mg) delivered intravenously over two minutes while subjects are at steady state of two doses of ibudilast (20 mg, 50 mg, twice daily). Discussion will focus on trade-offs between scientific and implementation decisions and how these trade-offs impact medication development in the Phase 1 activities. Following this presentation the audience should understand the regulatory process for medication development from preclinical through Phase I testing; understand trade-offs between scientific and population factors when designing Phase I safety studies in medication development; and understand the limitations of efficacy testing in Phase I safety studies of novel medications for stimulant dependence.

4:00 PM–6:00 PM BREAKOUT SESSION 2

Basic Science Datablitz (Topaz)

#### Keith Trujillo and Angelica Rocha

The two objectives in this breakout session are to describe late-breaking basic research findings, and to discuss means for making basic science relevant to Hispanic health issues. In the first objective, NHSN members will share their latest research in the context of Hispanic health issues. In the second objective, NHSN scientists will discuss topics and approaches in basic neuroscience (e.g., neurobiological influences of environmental toxins or stress) that can be translated to Hispanic health issues.

Bridging the Gap: Social Contextual Factors, Stress Processes, and Drug Abuse in Mexican Origin Families (Opal)

#### Charles R. Martinez, Jr.

U.S. population growth is fueled in large part by Mexican immigration. Mexican immigrant adaptation to the U.S. is shaped by social contextual factors (e.g., related to acculturation, discrimination, neighborhood disadvantage) that create vulnerabilities for stress and negative outcomes for families, including drug abuse. When combined with ill-equipped health, social service, and educational systems, family stress can increase. Though research suggests that cumulative exposure to chronic stressors contributes to immigrants' deteriorating health over time in the U.S., few studies have examined the effects of contexts of settlement for family behavioral health. We propose to describe our studies that bridge contextual stressors, psychosocial stress, and drug use for Mexican families, and discuss implications for intervention and health care delivery. The learning objectives of this session are to identify key contextual factors that relate to social environmental stressors for Mexican origin families; to discuss the implications of contextual factors and related stressors for Latino family stress and behavioral health; to describe methodological approaches that integrate self-report and biological markers to better model stress and its effects for Latino immigrant families; and to detail the malleable and proximal factors shaped by distinct sociocultural contexts that have implications for intervention and health care delivery.

### Social Contextual Influences of Acculturation Factors on Parent and Adolescent Behavioral Health Outcomes Among Immigrant Latino Families - Charles R. Martinez, Jr.

Acculturation and a host of related social contextual factors have long been shown to predict behavioral health outcomes for Latinos across the lifecourse. While large scale epidemiological studies have routinely found that greater acculturation is associated with poorer health, few studies have considered the unique vulnerabilities of immigrants within communities that have little prior exposure to the rapid demographic changes brought on by new immigration growth. Drawing on data from a variety of studies conducted by our team at the University of Oregon Center for Equity Promotion, this talk will focus on the effects of time-in-residency, differential family acculturation, and other related adaptation processes on the behavioral health outcomes of immigrant Latino parents and adolescents. Findings from multiple studies show both mediated and independent effects of different acculturation factors on family and adolescent behavioral health. Discussion of results will highlight specific vulnerabilities for families in states with emerging immigrant populations that often have few supports for the successful integration of recent immigrant families.

### Neighborhood Context and Mexican–American Adolescent's Mental Health and Risk of Drug and Alcohol Use - Rebecca M. B. White

This talk will focus on family and neighborhood influences relevant to adolescent internalizing and externalizing symptoms, drug and alcohol use, and related outcomes. The presentation will draw from a series of interrelated studies conducted by Arizona State University Prevention Research Center scientists to discuss links among neighborhood familism values, neighborhood risk indicators, family environmental factors (including parenting), and adolescent health. The talk will focus on mediators of effects of contextual influences on adolescent externalizing and drug use, such as maternal warmth, on youth outcomes. This talk will conclude by considering the implications of findings to date for intervention projects focused on engaging parents and communities in the prevention of poor behavioral health outcomes (including drug and alcohol use) among Latino youth.

### Comforting Messages that Moderate Perceived Ethnic/Racial Discrimination's Associations with Mexican-Heritage Youth's School Grades, Drug Use, and Other Delinquent Behaviors - Jennifer Kam

The risk and resilience framework identifies perceived ethnic/racial discrimination as a cultural stressor that places youth at risk for negative outcomes; however, youth who have a strong supportive environment are often more resilient. Unfortunately, past research often only uses general measures of social support (e.g., "I trust this parent" or "I feel this parent respects my feelings."), but not all forms of comforting exhibit buffering effects. One qualitative interview study recently identified specific types of comforting messages that discriminated-against-youth of Latino descent received from parents, siblings, friends, and teachers. Based on such findings, the present investigation developed survey measures to capture the different types of comforting messages and to evaluate their protective nature. Thus, it was hypothesized that discrimination is negatively related to school grades and positively related to drug use (e.g., alcohol, cigarettes, and marijuana) and other delinquent behaviors (e.g., stealing, getting into fights, being involved in a gang). This study also posed a research question: how do the different types of comforting messages moderate discrimination's associations with school grades, drug use, and other delinquent behaviors? Self-reported cross-sectional data were collected from 243 Mexican-heritage youth in 6th-8th grades (Mage = 12.4 years; SD = 1.1). They attended one of three rural Illinois public schools, and 44% of the youth were female. Path analyses were conducted in Mplus, using the full information maximum likelihood to handle the missing data.

Simple slopes were obtained for the significant interactions. The hypothesis received partial support. Discrimination was not significantly related to drug use, but it was negatively related to school grades ( $b = -.20, p < .05$ ) and positively related to other delinquent behaviors ( $b = .20, p < .01$ ). When examining how the different comforting messages (from parents, siblings, friends, teachers, etc.) functioned as moderators, this study found that for Mexican-heritage youth, who were frequently told to downplay their ethnic identity (e.g., “you should stop speaking Spanish in front of others” or “you should try to be friends with white kids.”), discrimination was not significantly related to engaging in delinquent behavior. The association was significant for youth who were infrequently told such messages. For youth who were frequently told to confront the perpetrator(s) (e.g., “you should fight the person who treated you badly” or “you should have made a comeback in response.”), discrimination was positively related to cigarette and marijuana use; however, these associations were stronger for youth who were infrequently told to confront the perpetrator. Lastly, for youth who frequently received empathetic messages (e.g., “they’ve had the same experience.”), discrimination exhibited a weaker positive association with delinquent behaviors compared to youth who were infrequently told such empathetic messages. Future research is necessary to: (1) identify specific messages that social network members provide to Mexican-heritage youth upon experiencing discrimination, and (2) such messages must be examined for their effects on youth’s academic and behavioral health outcomes. The results from such research may, in turn, inform the development of culturally-grounded substance-use prevention programs intended to enhance the well-being of Mexican-heritage youth in the U.S.

#### Measuring the Impact of Migration on Physical and Mental Health Outcomes (Diamond 1)

**Steffanie A. Strathdee and Michael A. Rodríguez**

This breakout session highlights presentations from four doctoral students and fellows from four University of California campuses who are focusing their research on the effects of migration on physical and mental health outcomes among Hispanic populations. Four presenters are mentees of the Center of Expertise on Migration and Health (COEMH), which is a core center of the University of California’s Global Health Institute. The proposed presentations were selected through a competitive process. All presentations are consistent with the NHSN conference theme which focuses on innovative scientific approaches that identify how to scale behavioral health services to close the unmet need gap for ethnic/racial minority populations. The breakout will be facilitated by two members of the leadership committee of the COEMH. A pre-eminent expert on migration research among Hispanic populations, Dr. Wayne Cornelius, will moderate questions.

#### Alcohol Use and Migration: A Binational Study Among Indigenous Mexican Migrants in Yucatán and California

**Miguel Pinedo**

Indigenous Mexican migration to the U.S. has been increasing since the early 1990s. Although research suggests that indigenous people are vulnerable to poor health in both their countries of origin and destination, little is known about their alcohol use disorders and migration-related risk factors that may shape these behaviors. Studies conducted in both the United States and Mexico investigating alcohol use behaviors suggest that migration may increase susceptibility to alcoholism. However, the role of domestic migration (which may entail similar migration-related stressors) has been virtually ignored. In order to fill these gaps in the literature we recruited a binational sample of 650 indigenous participants from Tunkás, Yucatan ( $n = 583$ ) and their satellite communities in California ( $n=67$ ) to explore migration-related factors associated with alcohol use behaviors. Using the Alcohol Use Disorder Identification Test, a validated screening instrument

developed by the World Health Organization, participants were categorized into 3 drinking category behaviors: low-risk, at-risk, or high-risk. For our statistical analysis we used logistic regression to identify migration related factors associated with alcohol use behaviors. Having spent less than five years on a U.S. migration trip was independently associated with being an at-risk drinker (AOR: 3.04, CI: 1.15 – 8.07). While having spent more than 5 years on a domestic trip was independently associated with at-risk and high-risk drinkers (AOR: 2.64, CI: 1.08 – 6.46; AOR: 2.75, CI: 1.08 – 6.46, respectively). These results shed light on the importance for future research on domestic migration and binational samples to better understand the role of migration in shaping alcohol use behaviors and guide prevention efforts for migrant populations.

#### Familism and Immigrant Generation: Measuring Obesity and Diabetes Among Mexican-Americans -Carolyn Zambrano

A high degree of social support and cohesion in Latino families has been credited with having a positive effect on health outcomes; for example, a higher degree of family support and cohesion is associated with a lower amount of psychological distress (Weisman et al. 2005). Higher levels of acculturation seem to be correlated with a decrease in familism; however, even a moderate sense of family obligation is correlated with positive emotional well being and even Latinos in the third generation have been found to have strong familial ties. What effect, if any, does familism have on the health of Mexican-American young adults? If there is a positive health benefit associated with familism for Mexican-American young adults? Is familism still protective for the third-plus generation? Using Waves I-IV of the National Longitudinal Study of Adolescent Health, I will compare the health outcomes of first, second, and third-plus generation Mexican-American adults by utilizing measures of family cohesion

#### Migration, the Body, and Masculinity: Studying the Effects of Migration on Male Conceptions of the Body and Sexual and Reproductive Health in Mexico and the United States

**Oscar F. Gil-García**

When health institutions do address male sexual and reproductive health, they concentrate on HIV/AIDS and other STIs where “men are commonly construed as being ‘the problem’”. Reinforcing the perception of male irresponsibility to sexual health are epidemiological studies that identify migrant men with higher rates of serial non-monogamy than women that increase the potential for contracting HIV bi-nationally, but lack explanatory models of how sexual desire is shaped and reconfigured by ongoing migration. The gendered framing of men as either recalcitrant agents or vectors of disease reinforces a binary that naturalizes women as the most effective recipients of sexual and reproductive health programs while subjecting migrant men to stigma. To redress this dominant global health model that compounds the vulnerabilities of mobile populations, I plan to explore the meanings indigenous men ascribe to the body and how these perceptions, structured by gendered migration networks, impact sexual and reproductive health and fertility outcomes throughout different stages of migratory transit: origin, destination and return. My study aims to triangulate how changing views of men’s bodies and sexual desires in three interconnected sites: 1. La Gloria, the community of origin in the state of Chiapas, Mexico; 2. in Los Angeles, California and 3. and Greeley, Colorado

### **Exploring Migration and HIV Risk among Female Sex Workers along the Mexico-Guatemala Border -Teresita Rocha Jimenez**

This presentation will describe a study being conducted among 30 migrant female sex workers (FSWs) in the Mexico-Guatemala border communities of Cd. Hidalgo/Tapachula, Mexico and Tecun Uman, Quetzaltenango, Guatemala. Given that the thriving sex industries, rising substance use, and exploitation of migrants characterizing this setting are hypothesized to entail serious health and social risks, our objective was to understand the influence of the context and nature of FSWs' migration histories on HIV risk among migrant FSWs. Data were collected using ethnographic methods; fieldwork included field observations and in-depth interviews with migrant FSWs. Findings will discuss the HIV-related health consequences of migratory experiences (e.g., forced migration; sex trafficking) among internal and Central American migrant FSWs, and their implications for regional substance use and HIV prevention policies and interventions.

### **Discrimination and Machismo as Predictors of Alcohol Use among Latino Day Laborers - Lizette Ojeda**

Among immigrants, Latinos consume more alcohol than other groups and more Latino immigrant men consume alcohol than women. Additionally, alcohol use is more common among the unemployed, such as day laborers, than among the employed. This combination puts Latino immigrant male day laborers at an increased risk for alcohol abuse. Furthermore, Latino immigrants compared to their U.S.-born counterparts reported greater discrimination. Consequently, discrimination can negatively affect mental health and increase adverse behavioral outcomes such as alcohol abuse. In turn, machismo may manifest through increased alcohol use perhaps because manliness is expressed in part by greater alcohol tolerance. Latino immigrant men who adhere to machismo and experience discrimination may consume more alcohol to cope with the threat to their masculinity as unemployed minority men and the stress of discrimination. Thus, we hypothesized that: H1: Machismo and discrimination will significantly and positively contribute to the variance accounted for in alcohol use while controlling for immigration status. H2: The interaction effect between machismo and discrimination will add unique variance accounted for in alcohol use above and beyond the effects of immigration status, machismo and discrimination. Participants included 150 Latino immigrant male day laborers who were recruited from a day labor site in Texas. Scores from the following instruments were analyzed using multiple regression statistics. Alcohol use. Self report of weekly average number of drinks consumed. Immigration status. Participants selected their immigration status from the following: U.S. resident, U.S. citizen, undocumented. Machismo. The Machismo subscale measures adherence to machismo. Discrimination. The Perceived Discrimination Scale measures perceived discrimination due to minority status. Findings indicated 36% of the variance accounted for in alcohol use was predicted by immigration status, machismo, and perceived discrimination. Only machismo uniquely affected alcohol use. When the interaction between machismo and perceived discrimination was added, the variance accounted for in alcohol use increased to 51%. Interaction effects revealed that men who endorsed higher levels of machismo and perceived less discrimination drank significantly more alcohol than men who also endorsed similar levels of machismo but perceived more discrimination. While the relation between machismo and alcohol use has been supported, the interaction between machismo and discrimination seems counterintuitive. For instance, stressful circumstances (e.g, discrimination) may induce alcohol use if an individual believes it will relieve stress. Thus, Latino immigrants may drink alcohol to cope with discrimination. The Latino paradox may help explain the counterintuitive findings. For instance, although Latino immigrants report experiencing more discrimination than U.S.-born Latinos, they experience

less negative health outcomes. This paradox may suggest Latino immigrants are resilient to hardships. Nonetheless, the finding that lower discrimination among men who adhere to machismo resulted in more alcohol use needs further exploration given its health implications

### **The Science of Adaptation: Improving Prevention Services for Minority Youth (Diamond 2)**

#### **Lori K. Holleran Steiker**

Many drug prevention curricula fail to be relevant and engaging for youth recipients. Increasingly, research indicates that culturally grounded adaptations of interventions have enhanced effects. Adaptation can be critical when the culture of the audience is unique, either ethnically, socially, organizationally, or economically. Given that poor implementation results in lost program effectiveness, those that adapt curriculums should be very careful about procedures. This breakout session will include researchers in culturally based curriculum adaptation for Latino youth. Three adaptations of an evidence based curriculum, a) for Latino youth in Spain (Marsiglia), b) for Latino youth in community-based settings (Holleran Steiker), and c) for LGBT youth (Goldbach). The researcher's experiences, challenges, and recommendations will be described. Following this session the audience should be able to identify basic concepts and tenets of curriculum adaptation; be able to describe the utility of program adaptation for unique groups of adolescents; and be able to identify opportunities in their own prevention work where adaptation may be appropriate.

### **Understanding Basic Constructs of Program Adaptation**

#### **Felipe G. Castro**

Many drug prevention curricula fail to engage youth recipients, often due to a lack of cultural sensitivity and appropriateness. Adaptation may be critical, particularly when groups are unique racial/ethnically, socially, organizationally, or economically. However, adaptation must be approached with caution, as loss of fidelity can also reduce program outcomes. This portion of the presentation will describe basic tenets and constructs of cultural adaptation for prevention programming, describing effective, research-based approaches to adaptation. It will also introduce the keepin' it REAL curriculum, an evidence-based program that has been adapted in unique ways by each of the subsequent presenters.

### **Keepin' it REAL: Adaptation for Youth in Jalisco-Mexico**

#### **Flavio F. Marsiglia**

This portion of the presentation will review the ongoing cultural adaptation of an Arizona developed prevention intervention in partnership with researchers in Jalisco-Mexico. The initial surface adaptation and feasibility study of keepin' it REAL provided rich qualitative and quantitative data for the cultural adaptation project. Lessons learned will shared as well as a detailed review of the ongoing adaptation process

### **Keepin' it REAL: Adaptation as Intervention for Older Youth in High School and Community Settings - Lori K. Holleran Steiker**

This portion of the presentation will examine the impact of adaptation on the youth who are engaged in the process of adapting the curricula for their peers or younger cohorts in their community settings. Youth who helped to adapt the kiR curriculum, infusing it with their own real-life experiences and consequences from drug and alcohol use and abuse, report that being Preventionists changed their perspectives about using substances and even impacted their choices with regard to substance use and abuse. This discussion highlights the bridges between prevention and intervention with older multiethnic youth who may already be using substances, even extensively.

### **Keepin' it REAL: Adaptation for LGBT Youth - Jeremy T. Goldbach**

Lesbian, Gay, Bisexual, and Transgender (LGBT) adolescents consistently indicate higher rates of alcohol, marijuana, cocaine, ecstasy, and other drug use when compared to their heterosexual peers. Currently there exists no curriculum designed to prevent the use of ATOD with LGBT youth. Thus, this portion of the session will describe an adaptation of keepin' it REAL with LGBT youth. The session will report on the adaptation process, along with qualitative findings and recommendations for program development from the perspective of youth participants.

### **The Role of Depressive Symptoms and Heavy Alcohol Use in Teen Dating Violence Among a High-Risk Sample of Urban Hispanic Youth - Jennifer M. Reingle**

Dating violence among teens has been identified as a significant public health problem, as large epidemiologic studies reported that 12% of high school students self-reported dating violence by an intimate partner, with as many as 57% of some at-risk samples reporting dating violence perpetration and/or victimization. Although the relationship between dating violence and substance use has been examined previously, there has been a dearth of literature incorporating mental health status (specifically, depression). Among Hispanics, depression has been associated with several other negative health outcomes, including violence, substance misuse, unintended pregnancy, and chronic health conditions. To our knowledge, no studies have evaluated risk factors for dating violence specifically among Hispanics, a unique group which has many risk factors which differ from Whites or African-Americans. To address this gap in the literature, we examined dating violence victimization among a high-risk group of Hispanic youth. Specifically, we were interested in the relationship between substance use (specifically, alcohol consumption and binge drinking), depression, and teen dating violence. Data were obtained from Project Northland Chicago, a school-based alcohol prevention program targeted towards a high-risk group of urban youth. For the purposes of this study, 960 self-identified Hispanics were surveyed in 12th grade regarding their alcohol and tobacco use, violent and sexual risk behavior. This sample was 45% male, 68% Mexican, and 63% were born in the United States. More than 80% of the sample received free or reduced price lunch. Survey logistic regression was used to examine the relationship between dating violence victimization, depression, and substance use. The prevalence of dating violence victimization among Hispanics in this sample was 11.8%, and this proportion was significantly higher than Whites and African-Americans. Depression and heavy alcohol use were directly associated with dating violence victimization (Depression: OR = 1.10; 95% CI 1.02-1.18; Heavy alcohol use: OR = 1.33; 95% CI 1.11-1.59). Alcohol use frequency (OR = 1.06; 95% CI 1.03-1.08), heavy alcohol use (OR = 1.38; 95% CI 1.18-1.62), and marijuana use (OR = 1.06; 95% CI 1.04-1.09) were significantly associated with depression. No significant differences in dating violence, depression, or alcohol use by generational status, language spoken in the home, and national origin were detected. Depression and heavy alcohol use play a substantial role in teen dating violence victimization, and these influences could not be explained through cultural-specific risk factors (nativity, language, and national origin). Marijuana use appears to have an indirect effect on dating violence victimization through depressive symptoms. Overall, dating violence victimization disproportionately affects Hispanic youth, and the co-occurrence of depression and heavy alcohol use appears to increase risk for dating violence victimization.

### **Adult Social Bonds, Crime, and Drug Use among Disadvantaged Mexican American Males - Kathryn M. Nowotny**

Sampson and Laub (1993) draw on the life course framework (Elder 1985) and Hirshi's social control theory (1969) to develop their age-graded theory of informal social control. The theory suggests that people are more likely to engage in criminal or delinquent behavior if their bonds to society are weakened or broken. Second, the theory suggests that among offenders strong social bonds predict desistance from criminal offending in adulthood. Research has consistently shown that adult criminal and delinquent behavior is reduced by marriage, employment and peers. Although Sampson and Laub stress that the quality of the attachment is most important. Parenthood has been less consistent. However, this research has traditionally focused on white males. Therefore, the generalizability of the positive effects of these social bonds for offenders is still in question particularly among Hispanics.

Using a high risk sample of 230 young adult Mexican American males with a history of adolescent gang membership (NIDA R01 DA023857) we use logistic regression to examine the influence of marriage/cohabitation, parenthood, and employment on four types of past year criminal behaviors: property crime, violent crime, drug selling, and drug using (heroin/opiates, cocaine, and crack) controlling for age, education, having a felony conviction, lifetime number of months incarcerated, and current gang affiliation. This paper further examines whether the quality of attachment influences offending across criminal behavior. Findings reveal that marriage/cohabitation, parenthood, and employment each have an independent effect by reducing engagement in property crime while marriage/cohabitating and employment have an independent effect by reducing engagement in violent crime. However, drug selling is only influenced by employment and drug using is only influenced by marriage/cohabitating. Findings further reveal that it is specifically being married that is associated with a reduction in property crime, violent crime and drug using. Cohabiting without being married does not have an effect on these behaviors. Likewise, while being a parent reduced only engagement in property crime, living with your own biological child(ren) had a negative effect on all criminal and drug using behaviors whereas living with another child(ren) (e.g., step, niece, brother) did not have an effect and being financially responsible for child(ren) only reduced property crime. Notably, of the 204 parents in the sample only 71 (30.9%) lived with their children). Similarly, it is being employed full-time that reduces engagement in property crime, violence crime, and drug selling not part-time employment. The length of the employment, another proxy measure for attachment, does not matter. Interestingly, none of the employment variables have an effect on drug use. There is a clear story where full-time employment matters for criminal offending among this population. This is important when considering the high rate of felony convictions (79%) and high average of years spent incarcerated (~4). Interventions aimed at this population should focus on employment resources. Moreover, having greater attachment to family including being married and living with your children reduces criminal and drug use behaviors. Therefore, focusing intervention efforts on strengthening family bonds may be useful in reducing criminal and drug use behaviors.

**Seth J. Schwartz**

The session will focus on culturally based predictors of drug and alcohol use among Hispanics. Jennifer Unger will present on 4-year longitudinal effects of behavioral acculturation on tobacco, alcohol, and marijuana use among Hispanic adolescents in Los Angeles. Elma Lorenzo-Blanco will present on social-cognitive mechanisms (attitudes, social norms, and intentions) regarding substance use and sexual behavior as mediators of the effects of acculturation on cigarette and alcohol use among recent-immigrant Hispanic adolescents in Miami and Los Angeles. Sabrina Des Rosiers will present on the mediating role of alcohol expectancies in the effects of acculturation on alcohol use outcomes among recently arrived Hispanic adolescents. Seth Schwartz will present on the effects of an expanded model of acculturation (including Hispanic and American practices, values, and identifications) on cigarette use, alcohol-related behaviors, and sexual risk taking among recently arrived Hispanic adolescents in Miami and Los Angeles. These studies are valuable because the majority of studies on acculturation and substance use have operationalized acculturation as a linear dimension between completely Hispanic and completely American – in contrast, we draw on the cultural studies literature, which operationalizes acculturation as a bidimensional, multi-domain process. Following this session the participants should understand: acculturation as the confluence of two independent dimensions – American culture acquisition and Hispanic culture retention – and as operating within multiple domains such as practices, values, and identifications; how different acculturative processes can influence various substance use and sexual outcomes in a variety of ways; the mechanisms through which acculturative processes affect cigarette use, alcohol-related behaviors, marijuana use, and sexual risk taking in Hispanic adolescents; how heterogeneity in the Hispanic population affects the ways in which acculturation predicts substance use and sexual outcomes; and the ways in which acculturative processes might be targeted in interventions to prevent or delay initiation of substance use and sexual activity.

**Longitudinal Associations Between Cultural Orientation During High School and Substance Use During Emerging Adulthood Among Hispanic Youth in Los Angeles - Jennifer B. Unger**

Among Hispanic adolescents, acculturation to the U.S. culture, loss of connection with the culture of origin, and discrimination have been implicated as risk factors for substance use. However, previous studies have not examined whether this risk continues into emerging adulthood. This study examined longitudinal associations between cultural factors during high school and alcohol use during emerging adulthood in a sample of 1136 Hispanic students in 7 Los Angeles area schools who completed surveys in 9th - 11th grade in 2005-2007 and again at age 19-20. 57% reported past-month alcohol use, 21% reported past-month tobacco use, and 25% reported past-month marijuana use. In multilevel logistic regression models, Hispanic orientation was protective against tobacco use (OR=0.318, 95% CI=0.128, 0.792) and marijuana use (OR=0.113, 95% CI=0.048, 0.269). United States orientation was a risk factor for alcohol use (OR=7.714, 95% CI=2.159, 27.568). Perceived discrimination was a risk factor for tobacco use (OR=1.480, 95% CI=1.076, 2.036). Contrary to expectations, ethnic identity was not protective against substance use. Results indicate that cultural phenomena during adolescence may influence long-term substance use trajectories among Hispanic youth. Health education interventions are needed to help acculturating Hispanic youth transition into emerging adulthood without resorting to substance use.

**Cigarette and Alcohol Use in Recent Immigrant Latino/a Youth: Acculturation, Gender, and the Theory of Reasoned Action - Elma I. Lorenzo-Blanco**

Latino/a youth are at risk for cigarette and alcohol use, and this risk increases with acculturation to the dominant non-Latino/a white culture. Latina girls are more affected by acculturation than their male counterparts. To ascertain how acculturation may influence Latino/a youth smoking and drinking behaviors, the current study integrated an expanded multidimensional model of acculturation with the theory of reasoned action. All of our analyses accounted for the role of gender because Latino/a youth acculturation and substance use are gendered experiences. Our sample consisted of 303 recent Latino/a immigrant youth (141 boys and 160 girls; 153 from Miami and 150 from Los Angeles). These youth completed measures of acculturation (Latino/a and American practices, values, and identifications), attitudes towards cigarettes and alcohol, smoking- and drinking-related subjective norms, intentions to use, and substance use. Multi-group structural equation modeling revealed that collectivistic values had the strongest influence on youth smoking and alcohol use. Specifically, collectivistic values were indirectly linked with less smoking and drinking by way of negative subjective norms and intentions to smoke or drink. Girls' smoking was more strongly influenced by collectivistic values than boys' smoking. But, boys' drinking was more strongly influenced by collectivistic values than girls' drinking. These findings suggest that prevention and interventions efforts aimed at reducing or preventing cigarette and alcohol use may do so by fostering collectivistic values and negative subjective norms of smoking and drinking in girls and boys. Girls' smoking and boys' drinking may especially benefit from such efforts.

**Heterogeneity in Acculturation: Association with Alcohol Expectancies and Alcohol- Related Problems Among Recent Immigrant Hispanic Adolescents -Sabrina E. Des Rosiers**

National surveys suggest that alcohol and related risk behaviors represent an important public health concern among adolescents of Hispanic background. Acculturation processes have been associated with whether or not – and to what extent individuals engage in alcohol use and related problems. However, use of a unidimensional perspective that describes acculturation along a continuum ranging between “less acculturated” to more acculturated” may have led to inconsistencies found in the literature regarding associations between acculturation and alcohol use. In contrast, a multidimensional approach to acculturation includes the identifications, values, and practices that change when an individual enters a new cultural context. It is also essential to understand the mechanisms through which acculturation predicts alcohol use. The current study replicated Des Rosiers et al. (2012) to examine whether acculturation orientations are directly and indirectly – through alcohol expectancies – related to alcohol use and related problems among recent immigrant Hispanic adolescents. Our sample consisted of 253 Hispanic immigrant adolescents (Mean age 15.73; SD = .85) who completed measures of Hispanic and American cultural practices; alcohol expectancies; frequency of alcohol use, binge drinking, and unprotected sex in the last 90 days. Acculturation orientations were positively associated with alcohol use and related-problems, and positive expectancies partially mediated the relationship between acculturation orientations and binge drinking. The current findings reaffirm that acculturation and alcohol expectancies represent important risk factors associated with alcohol problems. The fact that early onset of alcohol use places Hispanic adolescents at incrementally higher risk for maladaptive outcomes together with the present findings provide a strong rationale for the evaluation of acculturation processes and alcohol expectancies as critical targets for prevention and intervention efforts directed at reducing deleterious outcomes associated with alcohol use among vulnerable groups of Hispanic adolescents

### **Acculturation and Risk Behavior in Hispanic Immigrant Adolescents: An Expanded Theoretical and Empirical Perspective -Seth J. Schwartz**

Much attention has been paid to the effects of acculturation on health outcomes in Hispanic youth, but much of this prior research has suffered from serious theoretical and methodological flaws. Theoretically, many prior studies have operationalized acculturation as a unidimensional process ranging from “completely Hispanic” to “completely American”. Empirically, most studies examining acculturation and health outcomes have been cross-sectional and cannot speak to directional effects. The present study used a sample of 302 recent Hispanic immigrants (mean age 14.51; 150 from Miami and 152 from Los Angeles) completed measures of Hispanic and American cultural practices, individualist and collectivist values, and ethnic and American identity at baseline and reported on their past-90-day cigarette smoking, alcohol use and related behaviors, and sexual activity and risk taking at 1 year post-baseline. Results differed markedly between Miami and Los Angeles. In Miami, American practices were positively predictive of alcohol-related outcomes, but American identity was protective against these outcomes. Individualist values were positively predictive of sex with multiple partners but also predictive of condom use. Findings in Los Angeles were far fewer and weaker. These findings underscore the importance of considering multiple domains and dimensions of acculturation, as well as studying multiple contexts of reception, with regard to substance use and sexual activity.

### **Effects of Familias Unidas in Preventing Adolescent Internalizing Symptoms & the Role of Gender, Acculturation and Alcohol Use - Tatiana Perrino**

Studies indicate that Hispanic adolescents in the US may be at higher risk for depressive and internalizing symptoms than non-Hispanic whites, highlighting the need for effective prevention programs. Familias Unidas is a parent-centered preventive intervention designed to improve parenting and family functioning in Hispanic families for the purpose of reducing adolescent risk behaviors and promoting health. Previous studies have documented its efficacy in reducing adolescent substance use and sexual risk behavior, but its effects on internalizing symptoms (e.g., depressive and anxiety symptoms) have not yet been examined. While internalizing symptoms were not specifically addressed in this intervention, certain parenting and family factors were targeted that may have also impacted internalizing symptoms. Therefore, this study examines the efficacy of Familias Unidas in preventing internalizing symptoms in a high-risk sample of Hispanic adolescents, as well as possible moderators of intervention effects including gender, acculturation and alcohol use. 242 Hispanic youth with a history of delinquency and their primary caregivers were recruited from both the school system and juvenile justice system. Participants, 12-17 years old and 33% female, were randomized into either the Familias Unidas intervention or a Community Practice control condition. The outcome variable was parent reports of adolescent internalizing symptoms, specifically anxiety and withdrawal symptoms, assessed at baseline and then at 6 and 12 months post-baseline. A linear latent growth model was used to examine intervention effects on the trajectory of adolescent internalizing symptoms. Results indicate that although the proportion of internalizing symptoms decreased in both intervention and control groups over time, there was a significant intervention effect on internalizing symptoms. That is, Familias Unidas was efficacious in reducing adolescent internalizing symptoms. This presentation will examine implications of these findings for preventive interventions, including the possibility that targeting common risk and protective factors, such as parenting and family functioning, may impact a broad range of adolescent behavioral and mental health outcomes in high-risk Hispanic adolescents. The presentation will also describe findings regarding potential intervention moderators, including gender,

acculturation and alcohol use, to help identify subgroups that may be differentially responsive to the intervention.

### **Connections Matter: Applications of Network Analysis in Hispanic Health Research (Ivory)**

**Karla D. Wagner**

Network analysis focuses on connections between entities, rather than on individual attributes, and seeks to understand the structure of those connections and their influence on health outcomes. Building upon the methodological foundation presented in the Pre-conference Workshop on Network Analysis, we will present examples of the application of network analysis in Hispanic health research. Presenters will describe: (1) Network methods used to investigate the molecular epidemiology of HIV among drug users in the US-Mexico border region, (2) Findings from a mixed method study of how networks are used in coping with symptoms, life events, help- and support-seeking and treatment for depression among Hispanics in Los Angeles, and (3) Advances in personal social network methodology, with examples from research with Hispanic residents of Washington DC and in Honduras. The learning objectives of this presentation are to describe 3 different approaches to the use of network analysis in Hispanic health research; identify social network factors associated with mental health outcomes among Hispanics; understand the distribution of HIV phylogenetic clusters among drug using populations in the US-Mexico border region.

### **The Relationship Between Social Network Features and Support Seeking Behaviors Among Hispanics Treated for Depression - Harold D. Green, Jr.**

This project builds on network analysis theory and methods and uses a unique data source to explore the potential of personal networks as an intervention resource for depressed individuals. The data allow a grounded theory approach to investigate how personal networks are used in coping with symptoms, life events, help-seeking and use of treatments, based on a social network interview that provides specific information about how personal networks are used by those who have experienced depression. The research utilizes data from Partners in Care (PIC), a group-level randomized, controlled trial of practice-initiated QI programs for depression. This study explores ethnic differences in the experience of stress, coping, depression and help-seeking and long-term effects of the treatment arms of PIC, and the roles personal network members play based on quantitative personal network data that have been linked to 9 years of data collected previously in PIC. We use dyadic data analysis to predict a respondent's willingness to approach network members for social support (someone you would talk to about your feelings; go to for information and advice about mental health treatment; or go to for some other sort of support like money or a ride) based on respondent-level, network-level, relationship-level, and alter-level characteristics. We present results for Hispanics in this talk. For Hispanics we found the following relationships between hypothetical support and relational predictors. Hispanics were more likely to report that they would go to network alters to talk if they had a chronic disease, or interacted with alters frequently. They were less likely to talk to them about depression if the alter was a romantic partner or if the alter learned about their depression through passive disclosure or discovery. Hispanics were less likely to approach alters for information or advice if alters had learned about their depression through passive disclosure or discovery. Hispanics were more likely to approach alters for 'other' types of support including help around the house, money, rides, etc. if their level of emotional closeness with the alter was 'somewhat close', and were less likely if the alter learned about their depression through passive disclosure or discovery. Current or past depression, being in treatment, and individual demographics did not impact these behaviors. The strongest relationship across all models is that passive disclosure or discovery was

a strong negative predictor; respondents were very unlikely to approach alters who learned about their depression through passive means.

### **Molecular Epidemiology of HIV in the San Diego-Tijuana Border Region - Sanjay Mehta**

To improve our understanding of the factors driving the HIV epidemic in the San Diego-Tijuana border region, and to better design and implement prevention interventions, we are performing a detailed molecular epidemiology study on HIV in the border region. Methods: HIV pol sequence data, and associated socio-demographic information collected from several local HIV research programs in San Diego over the last 15 years will be used to build a baseline transmission network for the region. This project prospectively integrates subject data from local research, clinical and public health entities that are screening for and treating HIV infected individuals. Data from these sources is obtained in a de-identified manner, parsed and then organized into a HIPAA compliant database containing socio-demographic, geographic and phylogenetic information for each subject. The database will be set up to update itself in real-time as new HIV infections are identified in our catchment area. In addition, we will use the viral sequence data to map out the phylogenetic network structure of our local epidemic in relation to socio-demographic and geographic variables, and this will also update in a real-time fashion as new infections are identified. Bayesian phylogenetic analysis will be used to obtain estimates of the timing of large transmission clusters. Results: We have collected data on nearly 800 HIV infected individuals. Using a strict definition of a 1.5% genetic difference (TN93) to identify linked individuals, we have identified 65 clusters the largest with 20 individuals. Discussion: The collection and integration of this molecular, socio-demographic, clinical, and geographic data will allow us to gain a much better understanding of local HIV transmission dynamics. This understanding will only improve over time as we are able to improve sampling in our region by collaborating with additional HIV research and treatment programs in the area. Already we are working with 9 programs and are in discussions with 2 others. In addition to better understanding the correlates of transmission in the border region, we will also be able to use this constructed surveillance system to map the socio-demographic, geographic and phylogenetic locations of newly identified acute and early HIV infections, and eventually use this information to direct community specific prevention resources (i.e. needle exchange, education resources etc...) with the ultimate goal of preventing HIV transmission clusters from developing or expanding. Conclusion: Utilizing a network based approach to evaluate HIV transmission in a densely sampled area may yield additional clues on correlates of transmission. Additionally, the use of such an approach may assist in the development of focused and directed HIV prevention interventions.

### **Overlapping Personal Networks - Deborah Wojcik**

Krackhardt (1987) described Cognitive Social Structures (CSS) which are the perceptions of members of a network not only of their own interactions with other members, but of the interactions between other members. Krackhardt describes ways to aggregate these CSS across members of the group to create Consensus Structures, and the problems associated with such aggregations. In this paper we present five examples of CSS aggregations from personal network data that are overlapped. The key difference between this process and Krackhardt is that the respondent is free to list anyone in their network, and the relations between them, not a list from a whole bounded network. While this approach raises a host of problems, it yields two advantages - 1) it makes possible the measurement of the structural properties of a large whole network, such as a village, with a small sample of respondents, and 2) it can capture members on the periphery of the whole network who would be excluded with a

firm boundary definition, such as an itinerant trader who works between communities. In this paper we present the strengths and weaknesses of this approach. Krackhardt, David (1987) Cognitive Social Structures.

### **Illegal Substance Use, Mental Health, and Demographic Cultural Diversity in California (Crystal 2)**

#### **Javier Lopez-Zetina**

This research presentation will examine the relationship between substance abuse and mental health in communities significantly impacted by methamphetamine use and international migration. Specifically, methamphetamine use and mental health status among individuals receiving drug treatment services in Mexican communities and migrant communities in California will be examined. The proposed research seeks to examine comparatively the impact of migration on mental health status and substance abuse in U.S. and Mexican communities significantly affected by recent demographic resettlement trends in these countries. Cross-sectional survey data will be presented comparing persons in drug treatment in Southern California communities, and a comparable population of adult residents of a Mexican community heavily impacted by recent US-bound migration.

### **Migration, Mental Health and Substance Abuse in the U.S and Mexico - Javier Lopez-Zetina**

Objectives: The proposed research seeks to examine comparatively the impact of migration on mental health status and substance abuse in U.S. and Mexican communities affected significantly by recent demographic resettlement trends in these countries. Specifically, a cross-sectional survey data obtained from persons of Mexican origin receiving drug treatment services in a community in Southern California, and comparable sample of adult residents of Mexico from a community heavily impacted by migration, will be presented. The survey places special emphasis on understanding patterns of initiation to methamphetamine use. Methamphetamine use is currently one of the most serious challenges for mental health services agencies and substance abuse prevention programs in both sides of the border. However, little is known about the impact of one of the fastest growing substance abuse problems on individuals and communities affected by migration. It is expected that this preliminary research effort will strengthen foundations for a sustainable scientific and institutional collaboration between U.S. and Mexican researchers and academic institutions. The objective of this presentation is to describe mental health needs and patterns of substance use in bi-national populations impacted by international migration

### **Migration, Mental Health and Substance Use in the U.S. and Mexico: Methodological Issues in Cross-National Research - Britt Rios-Ellis and Jaina Pallasigui**

This presentation will discuss methodological aspects of cross-national collaborative research. Specifically, the presentation will discuss conceptual and methodological equivalence of survey instruments used to assess mental health and patterns of substance abuse in cross-cultural, cross-national settings. Special emphasis will be placed on discussing advantages and limitations of large scale population-based surveys and surveys targeting high-risk populations of substance users. This presentation will identify methodological issues in cross-national research of substance abuse populations.

### **Substance Abuse Among Women in Culturally-Diverse Border Communities in Southern California - Bridget Rogala and Christine N. DiRubbo**

This presentation will describe methamphetamine use and ethnic identity among women in the U.S-California/Mexico border region. Specifically, developmental, cognitive and affective aspects of ethnic identity and affiliation will be presented within a broader discussion of the contextual, socio-demographic factors of the U.S./Mexico border region.

Known for its intense cultural and demographic exchange, the border region is also significantly affected by common public health challenges, including methamphetamine use. This presentation will explore ethnic identity and its relationship with patterns of substance use among women in both sides of the U.S.-California/Mexico border region. In this presentation we will describe demographic and cultural factors associated with methamphetamine use among women in drug treatment in the U.S./Mexico border region and discuss women's cultural and ethnic identity and its relationship with methamphetamine use.

### **Rising Methamphetamine Use in the Gulf of Mexico Coastal Region in Mexico - Maria Cristina Ortiz Leon**

Methamphetamine use was primarily concentrated in the Northern Mexican border. However, recent trends indicate that methamphetamine use is also growing in Southern Mexico, particularly among persons from communities impacted by out-migration. In the last decade, the Gulf of Mexico Coastal region has experienced both significant out-migration and steady, but significant, spread of synthetic drug use. This presentation will discuss results from a survey conducted among individuals in drug treatment facilities, with special emphasis on emerging substance abuse trends and their association with US-bound migration patterns. This presentation will describe demographic and risk behavior patterns among persons in drug treatment in the Gulf of Mexico Coastal region in Mexico.

### **Heroin Use Among Hispanics in the United States: Results from the National Survey on Drug Use and Health - Catalina Lopez-Quintero**

Compared with heroin users from any other racial-ethnic subgroups, Hispanic heroin users exhibit riskier injecting practices, and are more likely to be diagnosed with HIV/AIDS, and to experience recurrence and drug overdose. Most of the available information on heroin use among Hispanics derives from non-probabilistic samples in particular cities, treatment-facility based samples, and medical records, and little is known about the behavior of heroin users in the general population. By using data from National Survey on Drug Use and Health (NSDUH) this report aims to characterize the patterns of use and identify the factors associated with heroin use among a nationally representative sample of Hispanic in the US. Data from 52,987 Hispanics surveyed in the NSDUH within 2005 and 2010 were analyzed in this report. The NSDUH is a national survey among members of the non-institutionalized U.S. civilian population aged 12 or older. First order statistics were conducted to characterize the sample, and to determine the lifetime and past year use of heroin and the routes of administration. Logistic regression analyses were implemented to identify the factors associated with ever having used heroin among the Hispanic population living in the US. Associations are expressed as Odds Ratios (OR) and adjusted odds ratios (AOR) and its corresponding 95% Confidence Interval. Analyses account for the complex sample design. Approximately 1.3% of the sample reported ever having smoked, sniffed, or injected heroin in their lifetime and 0.13% in the past year. Approximately 33%, 15% and 9% exclusively sniffed, injected or smoked heroin, respectively. About 11% sniffed, injected and smoked heroin in their lifetime. Significant differences were found in the routes of administration by language preference ( $p > 0.01$ ). Hispanic males (AOR=4.0, 95%CI 3.0-6.1) and those reporting English as their language of preference (AOR=5.0, 95%CI 2.9-8.8) were more likely than their counterparts to ever having used heroin. Having a past-year diagnosis of alcohol (AOR=1.9, 95%CI 1.3-2.9), nicotine (AOR=4.3, 95%CI 2.9-6.6) or any other illicit drug (AOR=5.2, 95%CI 3.0-8.8) use disorder increased the likelihood of ever having used heroin. While a lifetime diagnosis of depression was not associated with lifetime heroin use, a previous history of an anxiety disorder increased the odds of ever having used heroin by two-fold (AOR=2.1, 95%CI 1.2- 3.8). As expected, lifetime heroin use was associated with an HIV/AIDS diagnosis

(AOR=3.6, 95%CI 1.2-11.0).

Lifetime prevalence rates of heroin use among Hispanics in the US are comparable to those in the general population; however important intra-group variations were observed in these rates and in the routes of heroin administration. Factors such as gender, language preferences, and history of substance use and psychiatric co-morbidity and HIV/AIDS were associated with heroin use. Variations in the type of heroin available in the different geographic regions might explain the differences in injection practices among Hispanics with different language preferences. This study contributes to the understanding of the epidemiology of heroin use among Hispanic in the US by disentangling the role of covariates that have not been previously explored.

## **Saturday 29 September 2012**

9:30 AM-11:30 AM

ROUNDTABLE DISCUSSION ON SCIENTIFIC APPROACH  
(Crystal Ballroom)

### **William Vega and Hortensia Amaro**

The roundtable addresses the current state of integrated behavioral health care in large urban public health care systems, and their underlying scientific foundation, with four primary questions; (1) What are the primary challenges in the transformation of specialty medical services to comprehensive care of drug dependent clients – including clients with comorbid mental health and medical conditions?, (2) What are the evidence-based psychosocial, social cognitive, and pharmacologic therapies being used for substance dependence treatment?, (3) What are the major research programs ongoing in large urban systems to evaluate effectiveness of care, and to improve access and quality of care for drug dependent clients, with a special focus on needs of Latinos clients?, and (4) What models of care are being used for adult clients with a history of addiction including those returning to the community from incarceration, or the undocumented and uninsured?

### **Introducing Integrated Behavioral Health Care at the State-Level in Massachusetts - John Auerbach**

John Auerbach will share the Massachusetts experience in addressing the need for and implementation of integrated behavioral health care. He will share the ways that the state's groundbreaking health care reform initiative have had an impact on this work, which may offer some insights into the potential affect of the federal Affordable Care Act on such care. He will highlight the ways evidence-based clinical care and public health both play important roles - combining high quality comprehensive treatment with efforts to address the social determinants that influence behavioral health

NEUROSCIENCE

**1. Adolescent Rats are Resistant to Adaptations in Excitatory and Inhibitory Mechanisms that Modulate Mesolimbic Dopamine during Nicotine Withdrawal**

**Luis A. Natividad, Ph.D.**, *Post Doctoral Fellow, The University of Texas at El Paso, Department of Psychology; Loren H. Parsons, Ph.D., The Scripps Research Institute, Committee on Neurobiology of Addictive Disorders; Oscar V. Torres, M.A., The University of Texas at El Paso, Department of Psychology; Laura E. O'Dell, Ph.D., The University of Texas at El Paso, Department of Psychology*

Adolescent smokers report enhanced positive responses to tobacco and fewer negative effects of withdrawal from this drug than adults, and this is believed to propel higher tobacco use during adolescence. Differential dopaminergic responses to nicotine are thought to underlie these age-related effects, since adolescent rats experience lower withdrawal-related deficits in nucleus accumbens (NAcc) dopamine versus adults. This study examined whether age differences in NAcc dopamine during withdrawal are mediated by excitatory or inhibitory transmission in the ventral tegmental area (VTA) dopamine cell body region. Adolescent (post-natal day 28-30) and adult (post-natal day 60-75) rats received either sham surgery or were implanted with subcutaneous pumps delivering a constant dose of nicotine (13.5 mg/kg/day for adolescents, 9.0 mg/kg/day for adults; base) for 14 days. On day 13, rats were implanted with microdialysis probes aimed at the NAcc and ipsilateral VTA. In vivo microdialysis procedures were then conducted to monitor extracellular levels of dopamine in the NAcc and glutamate and gamma-aminobutyric acid (GABA) in the VTA of adolescent and adult rats following administration of escalating doses of the nicotinic-receptor antagonist mecamylamine to precipitate withdrawal in nicotine-treated animals. Our published results showed that NAcc dopamine was decreased to a higher extent in nicotine-treated adult versus adolescent rats (Natividad et al., 2010). Concomitant measures of VTA amino acid levels in adults showed that nicotine withdrawal produced significant deficits in VTA glutamate levels (44% decrease) along with significant elevations in VTA GABA levels (38% increase), consistent with an overall inhibition of dopamine cell activity. In contrast, adolescents did not exhibit changes in either of these measures. Na<sup>+</sup>ve controls of both ages did not display changes in NAcc dopamine, VTA glutamate or VTA GABA following mecamylamine. In order to examine the relationship between NAcc dopamine and VTA amino acid transmission, regression analyses were performed for each age group before and after withdrawal. Following mecamylamine, decreases in dopamine were positively correlated with decreases in glutamate in adults, whereas adolescents did not exhibit any significant correlation. The relationship between dopamine and glutamate was stronger in adult ( $R^2 = 0.82$ ) versus adolescent ( $R^2 = 0.30$ ) rats. Similarly, decreases in dopamine were negatively correlated with increases in GABA in adults, whereas adolescents did not exhibit any significant correlation. The relationship between dopamine and GABA was also stronger in adult ( $R^2 = 0.42$ ) versus adolescent ( $R^2 = 0.14$ ) rats. These results indicate that adolescents display resistance to withdrawal-related neurochemical processes that inhibit mesolimbic dopamine function in adults experiencing nicotine withdrawal. Specifically they suggest that adolescents experience enhanced excitation and reduced inhibition in the VTA dopamine cell body region that facilitates decreases in NAcc dopamine during withdrawal. Our findings provide a potential mechanism involving VTA amino acid neurotransmission that mediates developmental differences in nicotine withdrawal.

**2. The Effects of Prozac Exposure during Adolescence on Morris Water Maze Performance in Adulthood**

*Michelle J. Stone, B.A., California State San Bernardino; Ricardo Rodriguez, B.A., California State San Bernardino; Genesis Dayrit, B.A., Cal State San Bernardino; Seven Nieto, B.A., California State San Bernardino; Sergio D. Iñiguez, Ph.D., Assistant Professor, California State San Bernardino*

Epidemiological reports indicate that major depressive disorders (MDD) are common in children and adolescents. The prevalence of adolescent MDD has resulted in parallel increases in the prescription of fluoxetine (FLX) and related serotonin reuptake inhibitor antidepressants within this population. Although such treatments can last for years, very little is known about the long-term consequences of antidepressant exposure during developmental periods prior to adulthood on memory performance later in life. We exposed adolescent male c57BL/6 mice (postnatal day [PD] 35) to FLX (10 mg/kg, twice daily) for 15 consecutive days. We then assessed animals' behavioral performance on the Morris Water Maze spatial memory task when they reached adulthood (PD 70+). Specifically, mice were trained to find the location of a submerged escape platform on a single day task (8 training trials), and memory for the platform location was re-tested after a 24 hr delay (distance traveled and velocity). To increase the demands of the spatial task, the mice returned to the spatial task once again, 24hr later, and completed a probe trial (escape platform absent), and the time to reach the quadrant of the target platform location, as well as total time spent in the quadrant were recorded. We found that FLX exposure during adolescence did not influence spatial memory acquisition on the training day. In addition, no differences between the groups were observed when spatial memory was examined 24 hr after training. On the other hand, mice exposed to FLX during adolescence swam longer distances to reach the location of the missing platform, when tested 48 hr after training (probe trial). Our results suggest that as the demands of the spatial memory task increase, spatial memory deficiencies become apparent in adult mice exposed to FLX during adolescence. Overall, these results underscore the need for further research for a clearer understanding of the long-term functional effects of FLX exposure on the developing nervous system.

**3. Differences Between Adolescent and Adult Rats in the Acute and Chronic Behavioral Effects of Dissociatives**

**Angelica Rocha, Ph.D.**, *Post Doctoral Fellow, California State University San Marcos; Nigel Hart, M.A., California State University San Marcos and Texas A&M University (posthumous); Keith Trujillo, Ph.D., California State University San Marcos*

The current "club-drug" culture puts teens and young adults at risk for developing substance abuse problems. Club drugs are consumed in more intermittent patterns than harsher illicit drugs. PCP and one of its congeners, ketamine, are popular club drugs, both possessing rewarding properties that could lead to escalating use. Drug sensitization, or reverse tolerance, has been linked with the development of drug cravings. Previous research that has examined the development of sensitization to the stimulant effect of illicit drugs has demonstrated that longer intervals between drug administrations produces greater levels of sensitization and that adolescents are more sensitive to the stimulant effect of specific drugs of abuse. The current studies compared the acute response to PCP and ketamine in early adolescent (30 days of age), late adolescent (40 days of age), and adult laboratory rats, as well as the development of behavioral sensitization. Sprague-Dawley rats received PCP (6 mg/kg i.p.) or ketamine (20 mg/kg i.p.) once every-three days, for a total of five drug injections. Adolescents and adults showed a stimulant response to the first injection of the drugs; however the response was considerably higher for late adolescents and highest for early adolescents. With repeated administration, adults showed a robust escalation in activity, reflective of the development of sensitization.

Adolescents showed little evidence of sensitization, with similar high levels of activity across the five days of treatment as adolescents reached the adult stage. Adolescents showed an increased acute response to either ketamine or PCP and a higher ending point than adults. The results demonstrate important distinctions between adolescent and adult rats in the acute and chronic effects of PCP and ketamine. The different behavioral effects may reflect the differing subjective experiences produced by these drugs in adolescents, when compared to adults

## EPIDEMIOLOGY

### 4. Prevalence and Patterns of Polydrug Use in Latin America: Analysis of Population-Based Surveys in Six Countries

**Juan Carlos Reyes, Ed.D.**, Assistant Professor, Department of Biostatistics and Epidemiology, School of Public Health, University of Puerto Rico; **Cynthia M. Perez, Ph.D.**, Department of Biostatistics and Epidemiology, School of Public Health, University of Puerto Rico; **Marya Hynes Dowell, M.S.**, Inter-American Drug Abuse Control Commission (CICAD), Francisco Cumsille, Dr.Ph., Inter-American Drug Abuse Control Commission (CICAD)

The abuse of multiple substances continues to be a major public health concern in the United States (U.S.), Latin America and other countries in the world. According to the National Survey on Drug Use and Health of the U.S. Department of Health and Human Services (DHHS) in 2008, 56% of all admissions to publicly funded treatment facilities were for multiple substances. Although previous research has documented that polydrug use is an important public health issue, knowledge about the magnitude and patterns of polydrug use in several countries, especially in Latin America, is limited. The objectives of this presentation will be to determine the patterns of polydrug use in different Latin American countries; compare the different combinations of polydrug use across countries; and examine sociodemographic characteristics associated with polydrug use. The countries included in this study were Argentina, Bolivia, Chile, Ecuador, Uruguay and Perú. Each country conducted a household survey using a complex, multistage, stratified, cluster sample design survey. The data were collected by a face to face interview using a structured questionnaire, which was based on the Inter-American Uniform Drug Use Data System (SIDUC). The interview protocol included questions about demographic characteristics and substance abuse patterns. Polydrug use was defined as the use of two or more substances by one person in a month preceding the study interview. Multivariate ordinal logistic regression model was fitted to assess the effects of country of origin on polydrug use, after adjusting for age and gender. This study showed that nearly 20% of individuals aged 12-65 years reported polydrug use in six different Latin American countries. Alcohol was the prevailing substance of choice across countries. Those who used marijuana, cocaine and paste cocaine reported a higher prevalence of polydrug use. Moreover, 100% of individuals who reported the use of ecstasy also reported the use of at least three more substances. The multivariate ordinal logistic regression model showed that males were more likely to be polydrug users (OR=2.35; 95% CI: 2.2-2.5) compared to females after adjusting for country of origin. Participants aged 18 to 34 years and those aged 35-44 years were more likely to be polydrug users than those aged 45 years and over (OR=1.54; 95% CI: 1.5-1.6; OR=1.26, 95% CI: 1.2-1.4; respectively. Compared with Perú, participants from Chile (OR=3.66, 95% CI: 3.4-4.0), Uruguay (OR=2.48, 95% CI: 2.3-2.7) and Argentina (OR=2.42, 95% CI: 2.2-2.6) were significantly more likely to be polydrug users. Future epidemiological studies should be conducted to examine the relationship between other demographic characteristics and risk behaviors (e.g., age of initiation, family history of polydrug use, personality traits/behaviors, and mental health conditions)

with patterns of polydrug use that could be considered in the design and development of innovative and more effective prevention strategies and treatment modalities.

## BASIC SCIENCE

### 5. Juvenile Methylphenidate Enhances Cocaine Self-Administration and Escalation in Adult Rats

**Joseph A. Pipkin, B.A., C.A.T.C.**, Graduate Student, Graham Kaplan, B.A., Adam Pullaro, B.A., Zuhair Abdulla, B.A., Veronica Rios, B.A., California State University, San Bernardino; **Christina Shin, B.A.**, Arturo R. Zavala, Ph.D., California State University, Long Beach & **Cynthia A. Crawford, Ph.D.**, California State University, San Bernardino

The use of methylphenidate to treat attention deficit disorder in children has increased dramatically over the past three decades. Surprisingly, few studies have examined the long-term effects of using methylphenidate at such an early age. In rats, we have previously shown that early exposure to methylphenidate alters the reinforcing effects of cocaine self-administration when rats are tested as adults. In the present study, we examined the effects of early methylphenidate exposure on cocaine-induced responding under extended (6 hour sessions) versus short (1 hour sessions) access conditions, to test the hypothesis that early methylphenidate promotes escalating patterns of cocaine intake. Male and female rats were treated with methylphenidate (0, 2, or 5 mg/kg) from postnatal days (PDs) 11-20 and then trained to lever press beginning on PD 60. Rats were then implanted with a jugular catheter and allowed to press a lever reinforced with cocaine (0.5 mg/kg/infusion) on a fixed ratio (FR) one schedule during daily 1 hour sessions. Once stable cocaine self-administration was reached, rats were advanced and maintained on an FR3 schedule for the remainder of the experiment. After 21 days of self-administration, rats within each methylphenidate pretreatment group were split into a short access (ShA) or extended access (ExA) group based on cocaine history. Cocaine self-administration then continued for an additional 21 days during which ShA rats were allowed 1 hour access whereas ExA rats were allowed 6 hour access to cocaine. In males, early methylphenidate exposure increased cocaine intake during the initial 21 days of self-administration, whereas in females, treatment with methylphenidate had no effect on cocaine intake. Similarly, during extended access to cocaine, early methylphenidate exposure enhanced escalation of cocaine in males, while having no effect in females. The present data adds to a growing body of evidence that in males, early methylphenidate enhances the reinforcing value of cocaine. Additionally, these data suggest that early methylphenidate exposure may increase the abuse potential of cocaine.

### 6. Occult Hepatitis B among In-Treatment Non-Injecting Drug Users (NIDUs) in West Central Mexico

**Octavio Campollo, M.D., Ph.D.**, Professor; **Sonia Roman, D.Sc.**; **Arturo Panduro, M.D., Ph.D.**; **Gabriel Hernandez, M.D.**, Center of Studies on Alcohol and Addictions, CUCS, Universidad de Guadalajara, Hospital Civil de Guadalajara; **Lino Diaz-Barriga, M.D.**, Centros de Integración Juvenil A.C.; **Maria Lourdes Streber, M.Sc.**; **Instituto Nacional Ciencias Médicas y Nutrición S.Z.**; **James K Cunningham, Ph.D.**, Department of Family and Community Medicine, The University of Arizona

Occult hepatitis B (OHB) infection is a nearly silent form of hepatitis B, but one which nevertheless can be associated with cirrhosis and hepatocellular carcinoma. A well-studied, major route of transmission for OHB is injection drug use. In contrast, there has been little research on OHB among non-injecting drug users (NIDUs). This is the first study to examine the prevalence of OHB among NIDUs receiving drug treatment in west central Mexico. We sampled clients attending Centros de Integración Juvenil (CIJ) treatment programs in the west central Mexico states of Jalisco, Colima and Michoacan: 122 NIDU clients from nine community clinics and 30 NIDU clients from

an in-prison treatment program. Blood samples were analyzed for hepatitis B surface antigen (HBsAg), hepatitis B anticore antibody (anti HBc), antibody to hepatitis C and antibody to HIV. HBV DNA was detected by nested PCR of HBV genome; HBV genotypes were determined. Occult hepatitis B was defined as the presence of hepatitis B virus (HBV) DNA in individuals testing hepatitis B surface antigen (HBsAg) negative. 10 (8.2 %) of the 122 community clinic clients were occult hepatitis B positive; 8 (26.6 %) of the 30 in-prison treatment clients were occult hepatitis B positive. For the two groups taken as a whole, the most frequent genotype was F (68%). The prevalence of occult hepatitis B was relatively high for both the community treatment NIDUs and the in-prison treatment NIDUs. Although genotype H and G are the most common hepatitis B genotypes among the Mexican general population, the predominant genotype among this study's NIDUs was F. This is a concern as F is one of the three genotypes (A, C and F) known to be associated with chronic hepatitis B infection leading to hepatocellular carcinoma and suggests different reservoirs of HBV from other groups of hepatitis B patients in Mexico. Non injection drug users particularly prison clients could represent a high risk group for OBH.

## SOCIAL AND BEHAVIORAL SCIENCES

### 7. Characteristics and Long Term Results of a Tobacco Smoking Cessation Clinic in a Public Hospital in Mexico

**Octavio Campollo, M.D., Ph.D.,** *Professor, Centro de Estudios de Alcoholismo y Adicciones, CUCS, Universidad de Guadalajara y Antiguo Hospital Civil de Guadalajara.; Irma Navarro, B.A., M.Sc., Servicio Psiquiatría y Clínica para dejar de fumar, Antiguo Hospital Civil de Guadalajara, Mexico*

There are few public institutional Smoking Cessation Programs (SCP) in Mexico. The Smoking Cessation Clinic (SCC) at the University & Hospital Civil de Guadalajara (Jalisco) is one of the few public, university-sponsored SCP in the state and has attended over 1000 clients through its different programs in the past 5 years. The aim of this project is to analyze the results of SCP in our institution in a 36-month period and search for performance indicators. Following a combined Medical-Psychological program with a cognitive behavioral therapy and health education model which, in the intensive modality, includes eight once-a-week 90-min group sessions, we analyzed socio-demographic characteristics and success rates up to a 36 month follow up. In the past 5 years we have attended over 1000 clients receiving different modalities of therapy: brief intervention, individual counseling, and intensive group therapy. Almost one sixth of the patients (18 %) have registered to the intensive group therapy program of which a mean 52% have completed it with a mean abstinence rate of 39.5% (range 11-57%). There was a reduction in the number of cigarettes in 57%. Attendance tends to decline to approximately by half by the 6th week of treatment. We have followed up 50 % of the groups for up to 24 months and a few others up to 36 and 48 months. Abstinence and relapse rates range between 7-66% and 7-60% at 12 months, respectively; reduction and relapse rates between 6-7% and 6-27% at 24 months respectively; abstinence and relapse rates ranged between 6-20% and 6-27% at 36 and 48 months respectively. Women tend to complete the intensive program more than men. Although we have a high drop-out rate the intensive program has similar results to other programs and there are many possibilities for improvement. A more comprehensive analysis on the causes of drop out is guaranteed. Although contingency management is not common in this country it could be explored.

### 8. Treatment Dropout and Weeks of Ambulatory Abstinence Prior Admission to an Inpatient Treatment Program

**Maurice Samolski, M.D.,** *Post Doctoral Fellow, Instituto de Neurociencias, Clínica Javier Prado; Karine Zevallos, M.D., Ph.D., M.P.H., Universidad Peruana Cayetano Heredia*

Cocaine dependence is a prevalent condition among the Hispanic population. In Perú, cocaine is the first psychoactive substance for which people seek treatment in rehabilitation centers. Treatment retention is a well-known predictor of treatment outcomes. Approximately 50% of patients dropout of rehabilitation programs. Research focusing on factors that may influence treatment retention rates could have an important impact on treatment outcomes. The aim of this study is to estimate if weeks of abstinence prior being admitted to an inpatient rehabilitation program may influence treatment compliance in cocaine dependent individuals. Data are from patients that were admitted to the inpatient treatment program of "Centro de Rehabilitación de Naña" a governmental treatment center in Lima Perú, between years 2002 – 2009. (n= 644 males, age 18+ years). A logistic regression model was used to estimate the magnitude and significance of association between patients discharge status (treatment compliance or dropout) and ambulatory weeks of abstinence prior treatment in cocaine dependent individuals, with a null hypothesis of no difference in treatment discharge status. Subjects with more ambulatory abstinence weeks had a significant lower chance to dropout as compared to subjects with less ambulatory abstinence weeks, with and without statistical adjustment for covariates (e.g., age, cocaine route of administration ) at  $p < 0.01$ . In this preliminary cross-sectional study, the evidence suggests that subjects with more ambulatory abstinence weeks prior being admitted to the treatment program had a lower chance to dropout. Further studies are needed to confirm these finding and explore its implications.

### 9. Alcohol, Poly Drug Consumption and Minors: Good Practices of Intervention from the Internet

**Francisco José Montero-Bancalero, M.A.S.,** *Director of Revista Adicción y Ciencia Instituto Bitácora, Seville; Antonio Jesús Molina-Fernández, Director of Training Centre of Proyecto Hombre Association; Javier González-Riera, Health Promotion Technical Consultant, Jaen Health District, Andalusian Public Health System*

In recent years, the internet has become an important factor within the lives of youth. Because of this, an important factor in the war against alcohol and poly drug consumption problems among minors will take place through the internet. We consider internet use by substance using minors as affecting the framework of combined elements in three different areas: 1) minors' characteristics, 2) substance use approach, and 3) new technologies as intervention tool. The purpose of our study is to create a set of good professional practices to guide our interventions in this field. Stage 1: We developed a provisional set of good practices built from the following sources: a) bibliography related, b) our own experiences during the implementation of Aula de Alcoholismo, the ITC project and c) feedback generated from project presentations in scientific forums and subsequent notes in our field diary. The information was then classified and grouped in three different pools: a) youth population characteristics, b) substance use approaching, and c) professional internet use. Stage 2: The consequential set of good practices was reviewed by fifteen experts in drug interventions and concerns about new technologies came from different places from Spain. We accounted for these concerns and submitted revised materials which were later reviewed. Lastly, we discussed their assessments and took notes for revision in our field diary. The definitive set of good practices includes a total of fifteen recommendations to help the internet approach of substances use by minors. These good practices represent an attempt to highlight the importance of creating a framework for internet use by substance using minors. These good practices necessitate periodical updating based

on the challenges associated with scientific and technological advances.

## 10. Ecodevelopmental Predictors of Early Initiation of Alcohol, Nicotine, and Drug Use among Hispanic Adolescents

**Guadalupe A. Bacio, M.A.**, *Doctoral Student, University of California, Los Angeles*; **Shi Huang, Ph.D.**, *University of Miami*; & **Guillermo Prado, Ph.D.**, *University of Miami*

Early initiation of alcohol, nicotine, and drug use among Hispanic adolescents is a significant public health concern as it increases risk for a host of negative outcomes. Ecodevelopmental theory offers a framework to empirically test the interplay of risk and protective factors that influence the initiation of substance use among Hispanic teens at multiple ecological levels. The purpose of this cross-sectional study was to use structural equation modeling to test the transactional relationships of risk and protective factors as these predict initiation of alcohol, nicotine, and drug use. A sample of 746 Hispanic adolescents ( $M$  age =13.9,  $SD=0.67$ ) and their caregivers were recruited from 24 cohorts in the greater Miami area. Structural equation modeling was conducted to test the hypothesized Ecodevelopmental model to predict early substance use. School clustering effect was taken into account in the analysis. Results provided strong support for the model ( $CFI = .97$ ;  $RMSEA = .024$ ). Parental resources had an indirect effect on likelihood of starting to use substances through the teen's middle school socioeconomic status (SES) and perceived peer norms of use ( $\beta = .007$ ,  $p < .05$ ). That is, parental resources were related to the school's SES such that less years of parental education were associated with a lower school SES which in turn was related to worse peer norms and a higher likelihood of using substances in early adolescence. School SES also affected the likelihood of starting to use substances through perceived peer use norms ( $\beta = .023$ ,  $p < .01$ ) and marginally through sense of school membership ( $\beta = .013$ ,  $p = .07$ ). Specifically, lower school SES was related to worse substance use norms and lower sense of school membership respectively. In turn, worse peer substance use norms and lower sense of school membership predicted higher likelihood of initiating substance use in early adolescence. Findings highlight the importance of the interplay of risk and protective factors at multiple ecological levels that help determine early substance use initiation.

## 11. The Influence of Smoking Outcome Expectancies in the Smoking Behavior and Prediction of Smoking as a Function of Weight Concerns in a Spanish Adolescent Sample

**Mayra N. Berrios-Hernandez, Ph.D., M.S.**, *Post Doctoral Fellow, Texas*

*A&M University*; **Antonio Cepeda-Benito, Ph.D.**, *Texas A&M University*; **Abilio Reig-Ferrer, Ph.D.**, *Universidad de Alicante, Spain*

Smoking prevalence rates among adolescents continue to be a public concern, not only in the US but also in countries such as Spain. Eating disorders among Spanish girls have also increased considerably in Spain in recent years. Risk factors of eating disorders include body image, fear of fatness, and drive for thinness. These factors may impel some adolescents to use unhealthy mechanisms to control weight such as smoking. Weight control expectancies or the belief that smoking helps to control weight have been found to be associated with smoking behavior, particularly in females. However, most of the studies examining weight concerns and its relationship with smoking have been done with US samples. An investigation about the relationship between smoking expectancies and smoking behaviors in other populations is necessary. The main goal of this study is to examine the relationship between smoking rate, perceived likelihood of smoking in the future, weight control smoking expectancies and weight concerns among Spanish adolescents. Specifically, I intend to explore

the potential moderator role of weight concerns on the relationship between weight control smoking expectancies and smoking rate, as well as between weight concern and perceived likelihood of smoking in the future. Additionally, I want to investigate the possible mediational role of weight control smoking expectancies on the relationship between weight concerns and smoking rate and likelihood of smoking in the future, respectively. The participants were 311 Spanish adolescents ( $M = 15.20$ ;  $SD = 1.63$ ; 174 female and 137 male) from schools in Alicante, Spain. The students completed questionnaires regarding smoking history and status. They also responded to questions regarding smoking expectancies and weight concerns. A series of MANOVA, ANOVA and Multiple Regression Analysis were used to examine the proposed study. Results suggested differences between smokers and nonsmokers in weight control smoking expectancies and fear of fatness regardless of gender. The moderator model of weight concerns was not supported by findings. However, the results prove the mediational role of weight control expectancies on the relationship between fear of fatness and smoking rate, as well as between fear of fatness and perceived likelihood of smoking in the future. Findings from this study supported previous research that has found associations among these variables. A mediational role between the relationship of fear of fatness and smoking rate and likelihood of smoking in the future, suggested that weight control smoking expectancies may be the causal chain between these two variables, supporting previous findings. To our knowledge there are not studies that have examined weight control expectancies, weight concerns and smoking in adolescents from Spain. Therefore, future research is needed to better understand the degree and direction of the impact of these variables in smoking behavior. The inclusion of weight management components and the discussion of body image in prevention and smoking cessation programs are recommended.

## 12. Prevalence of Hepatitis C Virus, HIV, and Sexual and Drug-Using Risk Behaviors among Injection Drug Users and their Non-Injecting Sex Partners in Cd. Juárez, CHH México

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The drug using risk behaviors associated with injection drug use are a major public health issue due to the increased risk of contracting the Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV). Prevalence of HIV, HCV, and co-infection in the general Mexican population is 0.3%, 1-2.5%, 0.7%, respectively. Prevalence of HIV and HCV among injection drug users (IDUs) in Cd. Juárez has been documented to be 2.8% and over 90%. However, there is a lack of literature on co-infection rates among IDUs and HCV rates among their non-injecting sex partners (NISPs). The cross-sectional pilot study aimed to determine the prevalence and correlates of HCV and HCV/HIV co-infections and the sexual and drug-using risk behaviors among IDUs and their NISP in Cd. Juárez. A mix of convenience and snowball sampling was used for recruitment. Outreach workers conducted a structured interview among 49 couples to assess demographics and sexual and drug risk behaviors. All participants were tested for HCV (OraQuick® HCV Rapid Antibody Test) and HIV (OraQuick ADVANCE® Rapid HIV-1/2 Antibody Test). Descriptive statistics were conducted for demographics; sexual and drug risk behaviors; and HCV and HIV status by partner type. Discordance was analyzed with McNemar tests for: concurrent sexual partnership, unprotected vaginal

or anal sex, transactional sex, traumatic anal sex, and having ever having a sexually transmitted infection (STI). P-values <0.05 were considered statistically significant. The mean age of IDUs was 37 years old. Among IDUs, 71.4% were male, one was transman, and most identified as heterosexual (93.9%). Almost all (98%) had injected heroin in the last 30 days and 40% were on methadone with prescription. Over half (51%) reported having sex while under the influence of which 28.6% reported heroin use during these episodes. None reported having traumatic anal sex. HCV prevalence among IDUs was 95.9%. One IDU was HIV positive and was co-infected. The mean age of NISPs was 41 years old. Among NISPs, 71.4% were female, one was transwoman, and most identified as heterosexual (83.7%). Among NISPs who had sex in the last 30 days, almost a quarter (22.4%) reported having sex while under the influence of which 16.3% reported alcohol use during these episodes. One NISP reported traumatic anal sex and was HCV non-reactive while their IDU sex partner was HCV reactive. HCV prevalence among NISPs was 18.4% and none were HIV-infected. The proportion of IDUs and NISPs who had unprotected vaginal or anal sex (82.4% vs. 72.5%;  $p=0.125$ ); transactional sex (22.0% vs. 8.0%;  $p=0.092$ ); and ever having an STI (16.0% vs. 14.0%;  $p>0.999$ ) did not statistically significantly differ by partner type. The proportion of IDUs and NISPs who had concurrent sexual partnership (27.5% vs. 11.8%;  $p=0.04$ ) and HCV reactivity (96.0% vs. 18.0%;  $p<0.001$ ) statistically differed by partner type. We observed higher rates of sexual risk behaviors among the IDUs, however, for the exception of concurrent sexual partnership, these were not statistically significant. HCV prevalence and rates of sexual risk behavior were high among NISPs. Future interventions should include NISPs of IDUs and sexual partners.

### 13. Adult Social Bonds, Crime, and Drug Use among Disadvantaged Mexican American Males

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Sampson and Laub (1993) draw on the life course framework (Elder 1985) and Hirshi's social control theory (1969) to develop their age-graded theory of informal social control. The theory suggests that people are more likely to engage in criminal or delinquent behavior if their bonds to society are weakened or broken. Second, the theory suggests that among offenders strong social bonds predict desistance from criminal offending in adulthood. Research has consistently shown that adult criminal and delinquent behavior is reduced by marriage, employment and peers. Although Sampson and Laub stress that the quality of the attachment is most important. Parenthood has been less consistent. However, this research has traditionally focused on white males. Therefore, the generalizability of the positive effects of these social bonds for offenders is still in question particularly among Hispanics. Using a high risk sample of 230 young adult Mexican American males with a history of adolescent gang membership we use logistic regression to examine the influence of marriage/cohabitation, parenthood, and employment on four types of past year criminal behaviors: property crime, violent crime, drug selling, and drug using (heroin/opiates, cocaine, and crack) controlling for age, education, having a felony conviction, lifetime number of months incarcerated, and current gang affiliation. This paper further examines whether the quality of attachment influences offending across criminal behavior. Findings reveal that marriage/cohabitation, parenthood, and employment each have an independent effect by reducing engagement in property crime while marriage/cohabitating and employment have an independent effect by reducing engagement in violent crime. However, drug selling is only influenced by employment and drug using is only influenced by marriage/cohabitating. Findings further reveal that it is specifically being married that is associated with a reduction in property crime, violent

crime and drug using. Cohabiting without being married does not have an effect on these behaviors. Likewise, while being a parent reduced only engagement in property crime, living with your own biological child(ren) had a negative effect on all criminal and drug using behaviors whereas living with another child(ren) (e.g., step, niece, brother) did not have an effect and being financially responsible for child(ren) only reduced property crime. Notably, of the 204 parents in the sample only 71 (30.9%) lived with their children). Similarly, it is being employed full-time that reduces engagement in property crime, violence crime, and drug selling not part-time employment. The length of the employment, another proxy measure for attachment, does not matter. Interestingly, none of the employment variables have an effect on drug use. There is a clear story where full-time employment matters for criminal offending among this population. This is important when considering the high rate of felony convictions (79%) and high average of years spent incarcerated (~4). Interventions aimed at this population should focus on employment resources. Moreover, having greater attachment to family including being married and living with your children reduces criminal and drug use behaviors. Therefore, focusing intervention efforts on strengthening family bonds may be useful in reducing criminal and drug use behaviors.

### 14. Latino Adolescents' Drug Use: Depressive Symptoms, Peer Victimization, and Peers' Delinquent Behavior as Predictors

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National surveys indicate that the younger the respondents, the more likely Latinos are to report higher rates of substance use compare to youth from other ethnic groups. These figures do not clarify what individual and contextual factors are implicated in the use of drugs. Further, it is important to explore whether the factors that are linked to the use of gateway drugs (i.e., smoking, drinking, and marijuana) differ from those that predict the use of hard drugs (cocaine, heroin, meth) because the use of hard drugs can represent a distinct shift that may be linked to unique factors. In the current study, we examined whether depressive symptoms, peer victimization, and friends' deviant behaviors predicted the use of different drugs among a sample of Latino males and females. Participants were part of Fathers Count, a project conducted by three investigating teams in North Carolina, California, and Oklahoma. A total of 1127 males (45.4%) and females (53.9%) identified as "Hispanic/Latino" and their data were used for the current study. Participants ranged in age from 12-19 years ( $M = 15.21$   $SD = 1.11$ ) and a majority (68%) was born in the U.S. Data were collected in the classroom settings. Participants self-reported substance use within the last six months (e.g. "Gotten drunk"; "Used marijuana, pot") with an 8-item measure ( $\alpha = .83$ ). Items assessed the frequency of substance use using never (0), once (1), a few times (2), and many times (3). Participants' depressed mood was assessed with a 10-item short-version of the Center for Epidemiologic Study's Inventory for depressed mood. The short scale obtained a coefficient alpha of .83. Experiences with Peer victimization during the last 6 months was measured with a 9-item modified version ( $\alpha = .90$ ) of the Bullying Scale. Response choices were 0 = never to 4 = more than once per week. Participants reported on their friends' delinquent behaviors (e.g. gang involvement, vandalism, substance use) within the past 30 days with a 7-item scale ( $\alpha = .91$ ). Response choices ranged from 0 = never to 4 = always. Preliminary findings using multiple regression analyses indicated that depressive symptoms was only a significant predictor of gateway drugs (i.e., smoking, drinking, getting drunk) and prescription drug use not prescribed by a doctor,

but only for females. On the other hand, peer victimization appeared to be more consistently linked to hard drugs (e.g., speed/heroin/cocaine and acid) than gateway drugs for both males and females. Friends' delinquent behaviors were significantly associated with the likelihood of consuming any drug. Our findings point to the importance of examining the correlates of drug use by distinguishing among the different types of drugs and point to the salience of external stressors such as peer victimization as a potential mechanism linked to the transition into hard drugs whereas individual factors such as depressive symptoms appear to be implicated in the consumption of gateway drugs, with relations varying by sex of adolescent.

### 15. The Impact of Families Preparing the New Generation and Keepin' it REAL on Adolescent Intentions to Drink

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*Peer factors have been shown to be important in predicting adolescent drug use initiation. The knowledge or mere perception that peers are using drugs can influence the initiation and pattern of drug use for adolescents. Parents also play an important role in influencing what their children perceive as normative behavior. While many seventh graders have not yet experimented with drugs, their reported intentions to use have been linked to an increased likelihood of future drug use. The purpose of the current study was to test whether an 8-week parenting intervention (Familias) combined with a school-based adolescent substance use prevention program would reduce adolescent substance use (or intentions to use) by altering norms regarding drug use (the perceived prevalence of use). Data are drawn from 2 waves of data from the Familias: Preparando la Nueva Generación (Familias) study. The current study includes families who were randomized to receive either the youth-only (Y) or parent+youth (P+Y) condition. Two hundred and fifty adolescents (45.0% female; M age= 12.1 years, SD = 0.43) who identified as Hispanic/Latino and their primary caregivers (87.4% female; M age = 38.7 years, SD = 6.2) were eligible for the current study. There was a significant effect of the combined parent+youth intervention (relative to youth-only) on perceived prevalence of drug use ( $\alpha = -.18, p < .01$ ). There was also a significant relationship between changes in the perceptions of drug use prevalence and adolescent intentions to drink alcohol post-intervention ( $\beta = .27, p < .001$ ). The combined intervention had a significant indirect (mediated) effect on intentions to drink through an effect on perceptions of use ( $\alpha\beta = -.05, p = .01$ ). A significant interaction between condition and time was observed,  $F(1, 229) = 6.43, p = .012$ , with lower perceived prevalence of peer drug use values for the parent+youth group at follow-up compared to those in the youth-only condition. As hypothesized, adolescent perception of peer drug use was related to intentions to use. Following the intervention, adolescents in the combined parent+youth condition estimated fewer peers used drugs relative the youth-only group. Findings from this study demonstrate the added value of combining a parent intervention with a school-based intervention for adolescents to influence factors related to future drug use (e.g., perceived drug norms). A limitation of the study was that the mediator and outcome variable were measured at the same time (wave 2). Initial findings suggest the combined parent+youth intervention slows the rate of increase in perceptions of peer drug. After data collection of the third wave is complete, growth curve analyses will be conducted to test the rate of growth over time. The results of the current study provide additional support for the importance of parental influence on adolescents' plans and ideas about using alcohol, cigarettes, and marijuana in the future. Future studies will examine additional theoretical mediators to*

understand how the intervention influences intentions as well as actual drug use.

### 16. The Moderating Effects of Race and Ethnicity On Health-Risk Behaviors and Health of Latino and Non-Hispanic White Adolescents

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The current rates of health-risk behaviors among Latino adolescents continue to be of significant concern. Epidemiological statistics from the Center for Disease Control suggest that relative to non-Hispanic White youths, Latino youths continue to exhibit a higher prevalence of health-risk behaviors. Although there is a vast amount of literature, both conceptual and empirical, that has established possible risk and protective factors that contribute to or lessen substance use and violent behaviors, much of this literature is limited in that it focused on: a) examining predictors that shape a single health-risk behavior; b) adult populations; and c) non-Hispanic White youths—not Latino adolescents. Additionally, the direct relationship between health-risk behaviors and global health has been confirmed with adult populations—not adolescents. This cross-sectional study tested an ecological framework to understand risk and protective factors associated with predicting co-occurring health-risk behaviors (substance use, cigarette use, and use of violence) and global health assessments among Latino and non-Hispanic White adolescents. The present study was a secondary data analysis that derived from the 2006 National Survey of Drug Use and Health. The analysis included a subset sample total of 14,176 adolescents, including 3,063 Latino and 11,113 non-Hispanic White respondents who self-identified with these two groups. We tested a structural equation model (SEM) in AMOS 19 that examined the direct and indirect influence of negative peer associations, parental involvement, household income, number of times a youth has moved, population density, engagement in extracurricular activities, and participation in a prevention program for substance use and violence and its relation to health-risk behaviors and global health. We also examined whether health-risk behaviors were significantly associated with global health assessments. SEM results suggest that engaging in more negative peer relationships, increased number of moves, lower household income, increased parental involvement, increased participation in extracurricular activities, and participating in a prevention program were significantly associated with increased health-risk behaviors among non-Hispanic whites. Among Latinos, engaging in negative peer relationships, increased parental involvement, increased household income, and participating in a prevention program were significantly associated with increased health-risk behaviors. Population density was not significantly associated with health-risk behaviors among either group. Among both groups, adolescents who reported increased health-risk behaviors also reported significantly poorer health assessments. The independent variables in the hypothesized model accounted for a lower proportion of variance in adolescent health-risk behaviors among Latinos ( $R^2 = 30\%$ ) than among non-Hispanic Whites ( $R^2 = 55\%$ ). While promising, our model was more robust in predicting health-risk behaviors and global health among non-Hispanic White adolescents, thus an ecological framework may not fully explain which factors significantly predict health-risk behaviors or global health among Latino adolescents. Thus, more research is needed that advances knowledge on which factors are associated with increased risky health behavior among Latino youths. Doing so may provide empirical data to complement theoretical propositions in designing group-specific prevention interventions aimed at Latino adolescents. Such research may potentially close the health disparity gap that burdens Latinos at this stage and later stages of life.

### 17. Gambling Problem Severity and Acculturation Among Hispanics in California

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Hispanics comprise over 1/3 of California's total population and approximately 81% are of Mexican origin or heritage. Gambling problems may be more common among Hispanics than Non-Hispanics. It is necessary to understand mental health issues in the Hispanic community so that mental health services can be developed and tailored to specific needs and preferences. This research addresses a gap in the literature as few studies have examined gambling problems among Hispanics. Data from this study provides information on the severity and nature of gambling problems among Hispanic California residents. Using data from the California Problem Gambling Prevalence Survey, this study aimed to: (1) examine problem and pathological gambling prevalence among Hispanics; (2) describe preference for specific gambling activities among Hispanics; and, (3) examine the impact of United States (US) acculturation on prevalence of gambling problems and gambling activity preferences for low- and high-acculturated Hispanics. The reference group for these comparisons was all Non-Hispanic survey respondents. Volberg et al. (2006) describes data collection methods in detail. In short, the California Problem Gambling Prevalence Survey was a telephone-based survey of a random sample of non-institutionalized California residents over the age of 18 conducted in the mid-2000s. The original study team weighted the data to reflect the demographic composition of California as identified in by census data. We used the weighting procedure for prevalence estimates of problem and pathological gambling; however, we used unweighted data to examine gambling activity preferences. Acculturation was measured using a proxy composed of interview language, language spoken at home, nativity, and time spent in the US. We divided Hispanic respondents into low- and high-acculturated groups using a median split on this variable. Chi-square tests and binomial tests were used to compare prevalence rates and gambling activities across groups. Hispanics showed a higher prevalence of problem, but not pathological gambling, relative to all other Non-Hispanics. Male Hispanics showed higher rates of problem gambling relative to Non-Hispanics males, but female Hispanics showed similar rates of problem gambling as Non-Hispanics females. Low-acculturated Hispanic males showed higher prevalence of problem gambling relative to high-acculturated Hispanic males. High-acculturated Hispanic females showed higher rates of problem gambling than Non-Hispanic females. More Hispanics than Non-Hispanics preferred sports betting, but fewer Hispanics than Non-Hispanics preferred card games, table games, or horse/dog races. More low-acculturated Hispanic females preferred playing the lottery and fewer preferred card games. More low-acculturated Hispanic males preferred the lottery and sports betting relative to Non-Hispanics, but fewer preferred poker, other card games, or table games. Interestingly, other types of gambling were infrequently endorsed. Findings show higher problem gambling rates among Hispanics relative to Non-Hispanics, but pathological gambling rates are similar across groups. Gambling patterns showed some differences between groups, with lottery and sports betting being preferred by more Hispanics than Non-Hispanics. Interventions for problem and pathological gambling are needed in the Hispanic community.

### 18. Understanding Alcohol Use among Latino Immigrant Men: Perspectives from Providers and the Men They Serve

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Research suggests that Latino immigrant men face many difficulties in adapting to life in the United States. One of the ways Latino men cope with these stressors is with heavy alcohol use. Despite these patterns, Latinos are less likely to receive treatment for alcohol use problems than non-Latinos due to limited access to care and culturally inappropriate care. The primary objective of this study is to better understand the patterns of alcohol use in Latino men. Specifically, we aimed to describe the available services and identify service gaps for Latinos in the Seattle area as well as to identify the needs for Latino men related to substance use in this community in order to develop an intervention to reduce heavy alcohol use in this population. We conducted 13 semi-structured interviews with mental health and substance use providers that serve the Latino immigrant community in Seattle, WA. In addition, 27 Latino immigrant men who were current drinkers were recruited from community-based organizations to participate in focus groups and semi-structured interviews. Interviews/focus groups were conducted by trained bilingual research staff. Recordings were transcribed, then transcripts were coded and analyzed in Atlas.ti. Each transcript was coded by two members of the research staff. Cases summaries and coded quotations were reviewed for prevalent themes, among providers, among the men and across both groups. Patterns of alcohol use described by the men included binge drinking both with peers and alone. Many of the men reported that feelings of loneliness, social isolation, and guilt related to being away from their families contributed to their alcohol use. Most men chose to drink at home or in "hidden" public areas where they would not be seen by authorities. There is a great need for substance use services for Latino immigrants in the Seattle area. Providers believed that evidence-based interventions, such as Screening, Brief Intervention, and Referral to Treatment (SBIRT) that are culturally adapted would be an effective public health approach reduce and prevent heavy drinking among Latino immigrant men. Men were also receptive to the idea of receiving counseling in locations such as day labor work centers and community-based organizations. Providers also noted that there is a great need for increased mental health services and services for the uninsured in the Latino immigrant community. Our results suggest that Latino men are underserved population in regards to mental health and substance use. Evidenced-based interventions conducted in clinical settings, such as SBIRT, may be more efficacious if conducted in community settings where men more frequently seek services. These programs could help prevent and reduce heavy alcohol use in a vulnerable population.

### 19. "Amar te Duele" ("Love Hurts"): Understanding Intimate Partner Violence Perpetration and its Relationship with HIV Risk among Female Sex Workers and their Non-Commercial, Intimate Partners in Mexico

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Although associations between intimate partner violence (IPV) and HIV risk have been documented, most studies have examined victimization in the female partner; none have simultaneously focused on IPV perpetrated by both partners. We examined relationships between IPV perpetration, sexual relationship power, and injection drug use at the individual- and couple-level as correlates of unprotected sex among

female sex workers (FSWs) and their male non-commercial, steady partners in two Mexico-U.S. border cities. Cross-sectional, quantitative interviews with 214 FSWs aged  $\geq 18$  and their non-commercial, steady partners (N=428) recruited through street-outreach were conducted in Tijuana and Ciudad Juarez. A path-analytic model for dyadic data based upon the Actor-Partner Interdependence Model was tested to explore relationships between IPV, sexual relationship power, injection drug use, and unprotected sex within the relationship. Among FSWs and their partners, 47% of FSWs and 51% of partners perpetrated IPV in the past year; 51% of FSWs and 55% of partners reported recent (past 6 months) injection drug use, respectively. The mean percent of unprotected vaginal and/or anal sex acts (past month) among FSWs and their partners was 84%. Of the hypothesized paths specified within the model, two direct effects were statistically significant: FSWs' IPV perpetration and partners' IPV perpetration were significantly associated with FSWs' self-reported unprotected sex with their partners ( $\beta = .137, p = .016$ ; and  $\beta = .116, p = .027$ , respectively). Paths between sexual relationship power, injection drug use, and unprotected sex were non-significant. IPV perpetrated both by intimate partners and FSWs was significantly associated with FSWs' HIV sex risk. IPV is an important factor to intervene upon in HIV prevention with this population and needs to be addressed at both the individual and couple level.

## 20. Border Realities in Immigrant Communities

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Immigrants in the US have been living in an antagonist environment after the terrorist attacks of September 11, 2001. The Border States in particular have change the way this country is protected against future terrorist attacks. One of the communities that have been more targeted is Hispanics crossing the border from Mexico to the US. What happens in the border has an effect on the rest of the country and the view of immigrant communities particularly on Hispanics. Recently after a long wait following the HB 1070 in Arizona, the Supreme Court ruled constitutional for an officer to determine the immigration status of a person stopped, if there are reasonable suspicions that this person does not have the legal documentation to be in this country. The environment in border cities has become more instable and communities are responding in different ways to the pressures of immigration law. New Mexico was known as a sanctuary state for undocumented immigrants, yet this has changed. The new governor is stopping the right to obtain a driver's license by undocumented immigrants and there is an increase of border patrol in Las Cruces. This poster present at ethnographic study looking at the dynamics in the border community in Las Cruces related to immigration laws and policy changes. The researcher participated as a participant observant in "We the border. Envisioning a narrative for our future. Border Narrative Conference", visit the local markets and parks where gathering of Hispanics occurs. The researcher will also participate in three welcoming night in local schools. The researcher was able to observe the interaction of community members in their natural habitat. Also did in-depth examination of what the community thinks and the involvement of immigration officials in their city. All this observations emphasized the cultural and political contexts in the city as well as the state of New Mexico. This analysis was done to observe and describe newly emerging behavior or immigrant and Hispanic communities in Las Cruces, NM. Preliminary results indicate that perceptions of the anti-immigrant environment vary depending on the person that is reporting. Some local and national statistics report that border cities are safe, yet for immigrant families or mixed status families is very different. Families fear for their safety. They are afraid of deportation and family separation. Also there were instances in which unconstitutional rights are violated, such as car or house searches as well as asking

for documentation that in other parts of the country does not happen. These findings have implications for social services and policy changes. Communities in border cities are more susceptible of abuses not only from immigration enforcement but from receiving the services needed and being able to access them. Communities are being ostracized and forced to live in a stressful environment which can create mental and physical problems. Social services need to be aware of the changes in the community to be able to tailor their services to the community needs. Also policy needs to recognize human rights in this communities and respect rights and liberties for the border cities residents regardless of their immigration status.

## 21. He's Not My Pimp: Intimate Male Partner Involvement in Women's Sex Work in the Mexico-U.S Border Region

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Female sex workers (FSWs) sometimes work for pimps, who control their working conditions and extract a portion of their earnings. Studies suggest that pimps manipulate women and place them at heightened HIV risk through psychological and physical violence and coercion. FSWs' intimate, non-commercial male partners may be misrecognized as pimps who exert control over their female partner's livelihood and related decisions. We examined intimate male partner involvement in their female partner's sex work in order to inform interventions for FSWs. Proyecto Parejas is a social epidemiology study of HIV, sexually transmitted infections, and risk behaviors among FSWs and their intimate male partners in Tijuana and Ciudad Juarez. Targeted sampling was used to recruit 214 couples: FSWs were  $\geq 18$  years old, had ever used hard drugs, were in an intimate relationship for  $\geq 6$  months, and had sex with that partner and exchanged sex with clients in the past month. Male partners were  $\geq 18$  years old and in non-commercial relationships with eligible FSWs. Interviewer-administered baseline surveys covered socio-demographics, risk behaviors, and sex work. Forty-one couples were also purposefully sampled to participate in audio-recorded qualitative interviews about the relationship context of risk. This mixed methods analysis combines descriptive statistics about male partner involvement in the female's sex work with a grounded theory analysis of the qualitative data to highlight the dynamics underlying men's involvement. Among 214 couples (n=428 individuals), median age was 35 years (interquartile range [IQR]: 29-42) and median relationship duration was three years (IQR: 2-6 years). Recent drug use was common, and more than 60% of all participants' injected drugs. Ten women (4.7%) reported having a pimp or manager, five of whom said it was their steady partner. Most women (86%) shared their sex work earnings with their male partner. Women reported decision-making control over specific aspects of sex work: 91% decided on condom use, 90% made decisions about locating clients, and 86% decided when to work. In terms of earnings, 91% of women made decisions on how much to charge, 89% decided how much money they kept, and 87% decided how to spend this money. Male partners' survey responses corroborated their limited involvement in sex work. Qualitative data suggested that neither partner considered the male to be a pimp, but rather both partners distinguished their relationships as separate from sex work. Typically, men were not involved in decision making because it was hurtful, created

jealousy, or caused conflict with clients. Women did not involve their partners in their work for similar reasons. Some men advised their partners to select clients cautiously, wear pants (as opposed to short skirts), and use condoms as ways of trying to protect their intimate relationship. Interventions should recognize the role that non-commercial male partners play in FSWs' lives as distinct from traditional pimp-sex worker arrangements. In this context, strategies to reduce sex work-related harms should recognize women's agency in their work. Interventions should facilitate partner communication about HIV risks external to the relationship in ways that protect intimate partner bonds.

## 22. Longitudinal Drug and HIV Research with Deportees: A Feasibility Study

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Between 1999-2007, the U.S. deported ~4.8 million Mexican migrants, including ≥1.1 million to Tijuana, Mexico. Longitudinal studies of the health implications associated with deportation are needed. Between January-May, 2012, we conducted a mixed-methods pilot longitudinal study of post-deportation drug/HIV risks among newly deported Mexicans in Tijuana (n=21). Participants were recruited at the time of their deportation, in Tijuana, Mexico, which is adjacent to San Diego, California. All participants responded to repeated questionnaires and a subsample (n=4) responded to repeated qualitative interviews. The sample was recruited based on gender (71% males, 29% females) and drug using status (43% drug users, 57% non-drug users). We implemented a 1-month follow-up period, with a total of 6 contacts per participant. Study objectives were to determine: 1) whether newly deported migrants can be recruited and retained in longitudinal health studies and 2) what strategies increase retention of deportees in health research. Overall 62% of the study sample (i.e., newly deported migrants) were retained at 1-month follow-up. Participants became increasingly engaged after the second visit. Many preferred initiating communication and calling researchers to schedule interviews. Successful retention strategies included conducting interviews in a public hospital, meeting participants in the community, flexibility in days/times/locations when scheduling questionnaire/qualitative interviews, having multiple communication options (i.e., calling participants' cell phones, providing a toll-free study phone number, providing telephone calling cards) and cash reimbursements for transportation expenses. Attrition may be affected by new deportees' safety concerns, including mistrust of Mexican public officials, which sometimes limited sharing of contact information. While we could not determine rates of U.S.-re-entry among our study participants, we suspect that (failed or successful) attempts to return U.S. migration may have contributed resulted in loss-to-follow-up. Preliminary data suggest that newly deported migrants may be successfully recruited and retained in longitudinal studies. Implementing diverse communication strategies, including participant-initiated methods, may facilitate deportees' contact with health research studies and may promote retention while trust and rapport are established. Further research is needed with larger samples.

## 23. US-Mexico Binational Quit Using Drugs Intervention Trial (QUIT)

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The US-Mexico Binational Quit Using Drugs Intervention Trial (QUIT) is a multi-site study conducted in the US (East Los Angeles) and Mexico (Tijuana). Aims are to: (1) determine the feasibility of the self-administered electronic version of the WHO Alcohol Substance Involvement Screening Test (ASSIST); (2) estimate the rates of drug use in primary care clinic patients; and (3) conduct preliminary assessment of intervention effectiveness to prepare for a RCT of a primary care clinic-based brief intervention protocol for reducing the use of illicit drugs and the occurrences of drug-related harm in low-income patient populations at two 'safety-net' clinics in Tijuana, Mexico and two in LA. This proposal is responsive to calls from the Binational Mexico-US Drug Demand Reduction Meetings to reduce drug demand. Mérida funds will finance study activities that take place in Mexico. The US White House Office of National Drug Control Policy (ONDCP) and NIDA will finance study activities in the US. Some drug users seek care within primary care settings but their drug use often goes undiagnosed because patients won't report their drug use and their doctors don't ask about it. The objective is to adapt the US QUIT intervention for the East Los Angeles and Tijuana culture and conduct a "proof of concept" trial of the QUIT intervention approach. The mission is to develop brief, portable screening and intervention methods for use in primary care settings in both countries to address the complete range of 'at risk' drug use. 'At risk' drug use is defined as casual, frequent, or binge use without dependence. Specifically, 'at risk' illicit drug use and non-medical use of pharmaceuticals is defined by a score of 4 to 26 on the ASSIST. Subjects age 18 and older will be screened with the ASSIST (~1,000 in each country). Consented patients (~50, in each country) will be randomized to either (1) the QUIT intervention or (2) a control condition (care as usual). All data will be collected on EMMA, a system developed for the UCLA QUIT Study that utilizes touchscreen tablet PCs, a "talking touchscreen" to complete the self-administered screening tools. The Binational QUIT will include brief (<5 minutes) clinician advice during the medical visit preceded by a computerized assessment of the patient's drug-use history in a private area in the clinic waiting room or exam room, and followed by a post visit assessment and video doctor (providing a standardized brief clinician advice format) in the waiting room, two post-visit telephone drug-use counseling sessions to be conducted by drug-health educators at 2 and 6 weeks. Follow-up assessments will be conducted at 3 months. The US and Mexico investigator team will present preliminary findings regarding the intervention, importance of primary care and the barriers to change, and discuss issues related to international collaboration, technology transfer, and research methodology. The Binational QUIT Study meets key scientific and policy agendas for reducing drug demand at the borders by conducting drug abuse prevention activities with primary care clinicians and their patients.

#### 24. Effects of Alcohol Use Disorders and Related Health Risks in Mexican Americans: Cardiovascular Autonomic Function and Blood Pressure Variability

Jose R. Criado, Ph.D., *Staff Scientist, Scripps Research Institute*; Cindy L. Ehlers, Ph.D. *Scripps Research Institute*; Mary A. Kalafut, M.D. *Scripps Clinic*

Hispanic Americans represent about 12.5% of the U.S. population and about 32% of the population of San Diego County. Within the Mexican American population, a study by the Los Angeles site of the Ecological Catchment Area (ECA) found that Mexican-American men had higher alcoholism rates at all age categories than those of White men. The higher rates of alcoholism and heavy drinking by some Hispanics have also been shown to take a heavy toll in health consequences. Long-term heavy alcohol consumption and alcohol intoxication have been identified as important risk factors for stroke. In fact, findings by The Brain Attack Surveillance in Corpus Christi Project found that Mexican Americans had a greater incidence of stroke than non-Hispanic Whites. There is evidence to suggest that alcohol use disorders and risk of stroke are associated to deficits in the normal function of the autonomic nervous system (ANS). However, the relationship between alcohol use disorders, risk of stroke and ANS function in this population with limited access to quality health care is not well understood. This study is determining the role of cardiovascular autonomic function on alcohol use disorders and stroke risk in Mexican American men and women. Cardiac autonomic function, blood pressure variability (BPV), demographic information, diagnoses of alcohol-use disorders and other psychiatric disorders (based on the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised) and measures of acculturation stress are being obtained from Mexican American young adults who are literate in English and are residing legally in San Diego County. This study is still in progress and the present analyses are based on 52 of the 80 participants already assessed. Fifty-two participants, ages 18-39, had been assessed for alcohol use and alcohol use symptoms, obesity and acculturation stress. The preliminary sample contains 54% females (n = 28) and 46% males (n = 24). Descriptive analyses showed that 37% of participants (n = 19) were diagnosed with alcohol dependence, whereas 33% percent (n = 17) of participants had a body mass index (BMI) of over 30, suggesting obesity and 52% (n = 27) showed high levels of acculturation stress. Assessment of cardiac autonomic function showed that participants with BMIs over 30 exhibited a reduction in cardiovagal function, an increase in systolic and diastolic mean blood pressure and diastolic blood pressure variability. Participants diagnosed with alcohol dependence showed an increase in systolic maximum blood pressure and blood pressure variability. Initiation of underage alcohol drinking (under 18 years old) was associated with an increase in systolic blood pressure variability. These data suggest that the diagnosis of alcohol dependence, initiation of underage alcohol drinking and obesity in Mexican Americans are associated with increases in blood pressure variability, a risk factor for stroke. Obesity was also associated with a reduction in cardiovagal function. The number of participants in the study will be increased and new analyses will be performed to assess the role of cardiovascular autonomic function on alcohol use disorders and stroke risk in this Mexican American sample.

#### 25. Descriptive Analysis of Psychoactive Substance Use and Its Association with Offenses Committed in a Prison in Mexico City

Miguel Ángel López Brambila, M.D., *Chief of the Quantitative Research Departmental Unit*; Miguel Ángel Mendoza Meléndez, M.D.; Gayle Rosio Valdez Gonzales, M.D., *Octavio Enrique Aguilar Bustos, M.D.*; *Institute for the Care and Prevention of Addictions in Mexico City, Mexico*

Psychoactive substance use is a public health problem that is related to accidents and crime. However this situation not only occurs in the streets; substance abuse also occurs in prisons where some inmates admitted its consumption. Psychoactive substance use is sometimes associated with crimes while others begin their consumption while in detention. The aim of this study was to describe the overview of crimes inmates said they had committed and the use of psychoactive substances. We were interested in knowing whether there was an association between crimes and the use of a psychoactive substance by inmates in the Male Preventive Prison of Mexico City. A descriptive analysis of a database was derived from cross-sectional study in the second quarter of 2011 inmates in Mexican Prisons. A total of 8076 individuals in a Preventive Prison for male in Mexico City were looked at. An instrument designed to gather general demographic data, substances consumed, crimes and drug problems was used. The study revealed that 2 out of every 5 inmates were under the influence of a psychoactive substance while committing a crime, particularly alcohol and cocaine. There were three main groups of crimes reported by offenders: the first group constituted of those who committed crimes against people, the second group were crimes against society and finally crimes against the state. The most frequent crimes, robbery and murder, were associated with the consumption of psychoactive substances. It was also found that a third of the inmates consume at least one psychoactive substance, marijuana being the most consumed substance, followed by cocaine and alcohol. Drug use associated with the moment of committing a crime corresponds to more than one third of the population, it is presumed that crimes are also committed under withdrawal symptoms of psychoactive drugs, or when there is a need to raise funds for drugs and meet the needs of an addiction. Crimes against property and life are the most frequent. By preventing substance abuse one can reduce the incidence in these types of crimes. Drug use is a problem that must be addressed in order to reduce both their own consumption and the problems associated upon their consumption inside and outside the jails.

EPIDEMIOLOGY

**26. Male-Female Differences in Frequency of Cannabis Smoking and Onset of Newly Incident Drinking in Hispanics**

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In a new line of research on polydrug use, our aim was to compare and contrast the cannabis smoking (CS) frequency across subgroups defined by recency of onset of drinking alcoholic beverages ('drinking'). We seek to estimate the degree to which onset of drinking might displace cannabis smoking in Hispanics compared to other race-ethnicities. Data are from the 2004-2008 United States National Surveys on Drug Use and Health, which yield nationally representative samples of community residents (n=277,960 age 12+ years), all assessed with a standardized interview schedule to identify cannabis smokers (CS), and users of alcohol or other drugs. In our analyses, we compare CS frequency for newly incident drinkers (all with drinking onset <90 days before survey) versus other drinkers, with a null hypothesis of no difference in CS frequency, with race-ethnicity as a possible effect modifier. Analyses take into account the complex sample design and weights. Newly incident drinkers had lower CS frequency as compared to other drinkers, with and without statistical adjustment for covariates (e.g., age, sex, education, use of other drugs) at  $p < 0.001$ . In Hispanic males, the inverse association was quite precise. This was not the case for Hispanic females. In this preliminary cross-sectional study, the evidence suggests some possible differences in the displacement effect of cannabis smoking in the initial months after onset of drinking in Hispanic females. Further studies are needed to confirm these findings and explore its implications.

METHODOLOGY

**27. Growth Model of Cigarette Use among Hispanic Youth**

**Cristina Beatriz Bares, Ph.D., M.S.W.**, *Assistant Professor, Virginia Commonwealth University & Antonio Pascale Prieto, M.D., Universidad de la Republica, Uruguay*

Hispanic adolescents are consistently found to be using cigarettes at lower rates than their peers of other ethnic groups in the United States. Smoking behaviors among adults have been found to be quite heterogeneous. Because less is known about the degree of heterogeneity that exists among Hispanic adolescent smokers, the aim of the present study was to examine what happens over time to the number of cigarettes smoked by Hispanic adolescents who are current smokers. Data for this study came from the participants of the National Longitudinal Study of Adolescent Health (Add Health) who indicated they were of Hispanic origin and who reported being current smokers. The Add Health dataset includes a nationally representative sample of US adolescents who were assessed at four time points. Multiple ethnicities were oversampled in the original design. At the first assessment there were over 700 (11% of the sample) adolescents who indicated being of Hispanic origin. The analytical sample for this study included the 248 12- to 21-year-old adolescents participants who indicated being of Hispanic origin (mean age 15.8 at the Wave 1 assessment, 48% female) and had complete data

on the smoking variables of interest. Latent class growth mixture modeling using a negative binomial model was applied to annual reports of number of cigarettes smoked in the previous 30 days to determine whether there are distinct classes of Hispanic adolescent current smokers. At Wave 1 48.9% of the adolescents had ever smoked, and for those the mean number of cigarettes smoked was 13 in the previous month. At Wave 4, 74% of the sample smoked and those who smoked had smoked 18 cigarettes in the previous month. A two-class solution best fitted the data and comprised of the following percentages of the analytical sample: 'Early-phase initiation' (72.9 %) and 'Persistent dose' (27.0 %). The 'Early-phase initiation' class was characterized by a low number of cigarettes smoked in the previous month at the initial wave (intercept = 0.637) and showing a slight but significant increase trend over time (linear slope = 0.269,  $p < .001$ ). The 'Persistent dose' class was characterized by a higher average number of cigarettes smoked in the past month at the initial wave (intercept = 2.559) but, on average, no development over time (linear slope = -0.037, ns), indicative of a persistent number of cigarettes smoked across the four years. Among this Hispanic sample of adolescent smokers, the longitudinal growth of cigarettes smoked can be explained by 2 classes displaying different patterns of smoking. One class captures the trajectory of the initial phases of smoking initiation while the second class depicts a group of adolescents that consistently smokes over time. Properly identifying these classes of adolescent smokers has important implications for the development of targeted interventions and the provision of treatment.

SOCIAL AND BEHAVIORAL SCIENCES

**28. Relationship between Prison-Environment Variables and Problem Drug Use**

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A number of factors associated with drug use in the general population have been described. There is a lack of information about the relationship between prison environment variables and drug consumption. The aim of this study was to explore a possible relationship between prison-environment variables. A data base from a Mexican prison was analyzed, variables analyzed included: age, education, time in prison, legal status, committing crime under the influence of drugs and family visits. Drug related problems were evaluated using DAST 20. Significant differences were found between problematic and non-problematic drug users, concerning to age ( $t = 0.608$ ;  $p$ ). Results suggest that problematic drug users are younger and have less time in prison than non-problematic drug users. Prison environment factors such as lower education, being in a legal process, committing crimes under the influence of drugs and no family visits were found to be related with problems associated with drug use. There is a relationship between impulsivity and drug consumption related problems. Impulsivity is a common trait in young people, thus impulsivity may explain the problematic drug use in younger inmates. There is a negative relationship between low education and health problems and a positive relationship between education and a functional Ego; education may protect against problematic drug consumption. Emotional symptoms in prison decrease with the elapse of time, this can explain the negative relationship between problems and time in prison. Family support counts for addiction recovery, in this study people who were visited exhibited less drug-related problems. These results can be useful for treatment planning, but it is necessary to consider every environment and each individual case when a treatment is implemented.

**29. Nicotine Dependence in the Population of Mexico City**  
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Tobacco consumption brings about harm in the personal and social levels and therefore it is imperative to establish methods to reduce its use. In order to reduce tobacco consumption we need to evaluate its effects and the accuracy of such methods. In 2008, the Ley General for tobacco control (DOF, 2008) was established. This law's main objectives were: to protect the health of the population on the consumption of tobacco: to protect the rights of nonsmokers, establish the basis for production, labeling, packaging, promotion, advertising, sponsorship, distribution, sale, consumption and use of tobacco products, instruct measures to reduce the consumption of tobacco, encourage the promotion and dissemination of risk attributed to tobacco, establish guidelines for the design and evaluation of evidence-based public policy, establish guidelines for the delivery and dissemination of information with tobacco products. The purpose of this study was to compare the proportion of individuals with nicotine dependence in the population of Mexico City using the Fagerström test. The Fagerström test was used at the beginning of the implementation of the Ley General against tobacco and three years after in order to identify differences between the two samples. We applied the Fagerström test using a representative sample of the population of Mexico City in 2008 and in another sample with the same characteristics in 2011. For this analysis I took the reference point of 6 and higher quantify dependence. Chi square analysis was used to assess whether the responses of each population are independent. The prevalence of tobacco consumption once in a lifetime increased from 53.5% to 59.0% from first to second measurement ( $X^2 = 34595.3$ ,  $p < .001$ ), and the current consumption showed an increase of 28.4% to 31.7% ( $X^2 = 14775.6$ ,  $p < .001$ ). According to the Fagerström test found significant difference ( $X^2 = 7494.1$ ,  $p < .001$ ) among smokers with high dependence on the first measurement 1.4%, smokers with high dependence on the second (2.7%). According to the results, it was observed that the proportion of people with nicotine dependence in the city of Mexico has increased from 2008 to 2011. Knowing the status of nicotine dependence allows us to tailor existing treatment programs to the need of each individual patient, promote smoking cessation treatments and apply measures to support the implementation of the Ley General. Currently there is a program against smoking - 2011-2012- which aims to reduce consumption and harm caused by the consumption of tobacco. Further assessment are necessary to determine the impact of such measures.

**30. Addiction Treatment Cost for Families in Mexico City**  
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Given the costs that addictions represent in terms of health, safety and productivity, it is essential to create strategies for its reduction. To promote making informed decisions the people responsible for the development and implementation of public policies requires a better understanding of the problems. They need to be informed in order to plan realistic strategies for implementation. We selected a sample from the establishments for addiction treatment in Mexico City. We obtained the average cost of treatment per month, but considering that treatments have different durations ranging from 35 days to 6 months, the average cost for treatment was for three months.

To calculate the population in need of treatment people with one of the following conditions were considered: alcohol abuse or dependence, dependence on tobacco or any other drug dependence. The average cost for admittance was 945.45 pesos. The average cost per month was 2.581 pesos, the average cost per treatment was found to be quarterly 7,742.27 pesos. The sum of both costs was a total of 8,687.73 pesos per person. According to data from the National Survey of Income and Expenditure Survey, in the towns of over 2500 inhabitants, the decile I of the population have a quarterly income of \$ 6,345 pesos and in decile II an income of \$10,920 pesos, the patients within this sector of the population are unable to afford the cost of treatment, making it a catastrophic expenditure for families of addicted patients. For deciles III and IV the cost of treatment would also be a high burden as their average quarterly revenue of \$14,548 and \$18,254 pesos. Because the population into deciles I and II cannot afford the costs of addiction treatment, the state must implement the necessary measures to address this sector, considering that this sector represents 13.56% of the population. We recognize the economic challenge this represents but see its importance.

**31. Parenting Styles and Scholar Expectations Related to Antisocial Behavior**

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The main purpose of this study was to know how antisocial behavior is related to parenting styles and school expectations. It is well known that parenting styles and certain attitudes towards school are antisocial behavior associated factors, for that reason it is relevant to identify what is going on in those sceneries in the Mexican capital city that lodges a remarkable number of adolescent students who are vulnerable to the mentioned behavior. Disruptive behavior has become a public health problem for some time now, therefore it is important to point out those factors that are involved, in order to develop competent health programs that are capable to respond to the current social needs and prevent such behaviors as well as take proper action over them. The Student Survey of Mexico City 2009 was used through a standardized questionnaire. The sample was obtained via the 2008-2009 school year official records of the Public Education Ministry. The sample design was random, stratified (by county), with two stages (by school) and clustered (by groups). A 20% non-response rate was considered and the sample's accuracy level was 95% with a 0.004 absolute average error. The final sample included 22980 students. It was found that students with positive parenting styles show less antisocial behavior, and those with negative styles, show more antisocial behavior. Regarding scholar expectations, students who like to study and who want a professional career are those who show less antisocial behavior. There wasn't any significant difference between middle school and high school students, which means that the educational level was not a disruptive behavior predictor. Positive involvement and negative monitoring are important serious and minor acts predictors for men. Those predictors for women are negative monitoring and inconsistent discipline. Men who say school is an obligation have more chances of committing serious acts. It is interesting to note that women who attend school to meet people have more chances of committing serious and minor antisocial acts. Family and school are still socializing environments; however, they can also facilitate antisocial behaviors. A parental inadequate control and a misuse of the authority might unchain disruptive behaviors. Therefore, a co-responsible decision taking would be helpful. On the other hand, students who are attached to school or find a reason to attend, show less antisocial behaviors, which

may indicate that the school has enough offerings that can counter such behavior, or it is able to keep students away from them due to the time and attention it demands. Nevertheless, schools should be capable enough to provide students with useful skills and gear in order to outgrow their expectations and not only fulfill them. Thereupon, adolescents' education (meaning parental and scholar) should be reconsidered in its actual context, in a way that their interests and aptitudes are taken care of, and accurate limits are well established.

### **32. Migration to United States is Associated with Increased Heroin Consumption in Mexico**

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According to the last National Addiction Survey in Mexico, 106,939 Mexicans used heroin at some point in their life (91% men, 9% women, proportion 10:1), corresponding to a prevalence of 0.14% among 12 to 65 year-olds. In comparison, lifetime prevalence of cocaine consumption was 2.3% (4% in men and 0.7% in women). Although the prevalence of heroin use was stable in the last few years, the number of heroin users grew 73%, from 62 thousand in 2002 to 107 thousand in 2008. We analyzed the impact of migration on the prevalence of heroin and cocaine consumption. Using the NAS 2008 database, data on heroin and cocaine users was processed according to sex, history of migration to the United States, time and reasons of their stay, as well as frequency of previous drug consumption, during and after migration. A total of 4,666 heroin users (4.4%) and 190,326 cocaine users (11.2%) reported having visited the United States sometime in their life. Among the former, 39% had used heroin before going to United States, 43% used it during their stay and 96% used it upon their return to Mexico ( $p < 0.00$ ). In comparison, the prevalence of cocaine use before, during and after travel to the U.S. was 50%, 43% and 44%, respectively ( $p = 0.00$ ). Data suggests migration to United States constitutes is associated with an increased risk of heroin use, which was not the case with cocaine. Substance use prevention and harm reduction programs are needed for heroin users on both sides of the border.

### **33. Gender Differences and Survival Benefit of Universal HAART Access in Brazil: A Ten-Years Nationwide Evaluation**

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In 1996, Brazil became the first developing country to provide free/universal access to HAART, laboratory monitoring, and clinical care to any eligible patient. As of Dec 2011, approximately 250,000 patients were under treatment, making it the most comprehensive HIV treatment initiative implemented thus far in a middle-income country, worldwide. However, no nation-wide evaluation has been conducted using longitudinal information of all people living with AIDS receiving treatment in Brazil. Four national information systems were linked, and Cox regression was used to assess impact of HAART availability/access on AIDS-related mortality among heterosexual male and female diagnosed with AIDS from 1998-2008, adjusting for demographic, clinical, and behavioral factors and controlling for spatially-correlated survival data by including a frailty effect.

Among 222,110 patients (58.6% women), 72,919 died during 10 years of follow-up (32.8%). AIDS mortality rates for both men and women and for all exposure categories declined following introduction of HAART. However, heterosexual/female patients were diagnosed earlier, had higher baseline CD4 cell count and lower HIV-1 viral load ( $p < 0.001$ ). After controlling for spatially correlated survival data, all causes and AIDS-related mortality remained higher among heterosexual male. Universal and free access to HAART has helped achieve impressive declines in AIDS mortality in Brazil. However, after a 10-years follow-up, sex differences in HIV disease progression have become larger and statistically significant in the HAART era, supporting a stronger impact of health interventions among women.

### **34. Residential Drug Treatment Clinics in Jalisco, Mexico: Staff and Service Characteristics**

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Although it has been estimated that Mexico has more than 1800 drug treatment clinics, there has been little research on their characteristics and services. This study examined the staff and service characteristics of all residential treatment clinics in one of Mexico's most populous states—Jalisco in west central Mexico. All clinics in the state of Jalisco that met the criteria for "residential treatment program" according to the Official Mexican Norm 028 were surveyed on-site (191 clinics: 5,545 beds). Interviews were conducted with the program director and/or person in charge. The survey focused on the clinics' organizational structure and resources, including the training and characteristics of clinic staff. The clinics consisted of three general types: Self-Help (78%), combined Medical-Self Help (M-SH) (17%), and Medical (5%). Approximately half were located in the Guadalajara metropolitan area, and the rest throughout the state of Jalisco. About one-third had operated for less than 5 years, one-third for 5-10 years, and one-third for more than 10 years. Compared to Self-Help clinics, M-SH and Medical clinics were substantially more likely to receive public funding. Medical and psychological evaluations also were performed more frequently in the Medical and M-SH clinics than in the Self-Help clinics. Of the staff working in the M-SH and Medical clinics, approximately 51% and 89%, respectively, had college degrees. In contrast, only 17% of the Self-Help clinics' staff had college degrees. Twenty-five percent of the Self-Help staff and 27% of the M-SH staff cited their past use of drugs as a reason for not pursuing an education or college degree. Although college degrees were relatively uncommon among the Self-Help personnel, 61% of these personnel recognized the need for training in the treatment of addictions; and the majority (57%) expressed interest in receiving training. Most residential treatment in the state of Jalisco is available through Self-Help clinics. These same clinics, however, are substantially more likely to lack funding, medical supervision, and college educated personnel. That said, the majority of Self-Help personnel recognized the need for training and expressed interest in the possibility of receiving it. As Self-Help clinics predominate in Jalisco, there should be a greater focus on providing them with funding, supervision and training.

### **35. Functional Family Therapy (FFT) for Adolescent with Substance Abuse in Chile**

**Luis Caris, Ph.D.,** *Associate Professor, University of Chile*  
Epidemiological studies have revealed that adolescent drug use is growing in countries in South America, including Chile. The government has worked to develop a clinical infrastructure on treatment for adolescent drug abuse. EBTs for drug abuse have been not transported to developed in Chile and consensus exists among Chilean researchers, mental health leaders, and government for adopting EBTs for

drug abuse and related problems is a next step to improving treatment outcomes in Chile, with greater knowledge of preventive health practices. The confluence of a ready clinical infrastructure and other factors favoring health services and drug treatment availability places Chile in a unique position to pursue dissemination research on FFT for drug-abusing youth. An important pathway for EBT adoption and sustainability in developing and transition countries is scientist training. We obtained grant support in 2010 from the Fogarty International Center. This research is conducted by U.S. and Chilean investigators, building partnerships between health research institutions in the U.S. and Chile. The goal of the collaboration in Chile is to develop effective and efficient methods for disseminating FFT in clinical practice settings. Through an initial pilot study, we will: 1) evaluate FFT feasibility for adolescent drug abuse, 2) enhance the ability of Chilean scientists to conduct clinical trials in Chile, and 3) prepare a foundation for future expansion of dissemination efforts. The FFT evaluation involves families of drug abusing youth. Families will be randomly assigned to services as usual (SAU) or FFT in combination with SAU. The implementation of FFT in Chile has six core components: 1) staff selection, 2) effective training procedures, 3) continuous supervision, 4) continuous performance evaluation via supervision, 5) program evaluation, and 6) administrative involvement to foster implementation. The obstacles to dissemination we have encountered in the first year of the 3-year feasibility study include: 1) language barriers, 2) educating FFT model disseminators on unique implementation issues in Chile, 3) navigating governmental and nongovernmental organizations, 4) building stakeholder and provider motivation, 5) adapting concepts and tailoring the model for implementation at the community level, 6) launching the first training, 7) beginning the iterative process of intervention to fit the population, local providers, culture, and environment, and 8) establishing a structure for ongoing supervision. The first step in addressing model adaptation is educating the FFT model disseminators. The lead trainer, who was one month in Chile to learn more about language and culture, requires that therapists, managers, and FFT trainers work together to generate appropriate solutions, for family therapy with the entire family system and ensuring that FFT can be integrated into the existing service programs. These and other population or culture-specific issues (e.g., coca paste addiction) will require that therapists, managers, and FFT trainers work together to generate appropriate solutions, creating opportunities for family therapy with the entire family system and ensuring that FFT can be integrated into the existing service delivery programs. Chile is the most technologically advanced country. Building on this strength, we provided audio recorders to therapists on audio files. The trainer reviews these audio files prior to weekly conference calls with the clinical team. The behavioral observation, feedback, and coaching offered by this supervision is designed to build competent adherence among therapists and high levels of fidelity during the dissemination.

### 36. Puerto Rican Families with Substance Use Disorder Experiencing Intimate Partner Violence

**Cristina Mogro-Wilson, Ph.D.**, Assistant Professor, School of Social Work, University of Connecticut, West Hartford, CT; **Lirio K. Negroni, Ph.D.**, Associate Professor, School of Social Work, University of Connecticut, West Hartford, CT; **Michie N. Hesselbrock, Ph.D.**, Professor Emeritus, School of Social Work, University of Connecticut, West Hartford, CT

Parenting plays a crucial role in child development as both a risk and protective factor. For children exposed to multiple prolonged traumas such as substance abuse disorder (SUD) from either one or both parents and intimate partner violence (IPV), parenting can be disrupted. The body of literature on the effects of trauma for children related to intimate partner violence and exposure to substance use disorders is growing, but lacks the specificity to Latino populations and subgroups. In response

to this paucity of knowledge this paper will focus on Puerto Rican families to investigate the effects of trauma exposure (SUD and IPV) on child behavioral issues. This article utilizes cross-sectional survey data from the Latino Family Connection Project, a culturally adapted Strengthening Families Program. Puerto Rican families from two urban centers in Connecticut participated in the study. All families had to have a child age 9 to 12 and a parent who had a documented substance use disorder. Families were recruited through presentations, and brochures and flyers distributed by program staff. A total of 157 Puerto Rican parent-youth dyads participated. A variety of standardized measures were utilized including the Parent Observation of Children's Activities (POCA-R) to measure child behavioral issues, and subscales from the Parenting Stress Index-Short Form. Standard multiple regression was used to assess the effects of exposure to intimate partner violence and family protective factors (family hardiness, parental monitoring, parental reinforcement) and parenting stressors (parental distress, parent-child dysfunctional interactions) in the context of acculturation (place born, cultural connections, and social network) on the ability to predict child behavioral problems. The total variance explained by the model was 38.3%,  $F(9,126) = 8.70$ ,  $p < .001$ . Five variables contributed significantly to child behavioral problems, two acculturation measures and three parenting measures. Parent-child dysfunctional interaction was statistically significant with the highest standardized beta value ( $\beta = .308$ ,  $p = .001$ ). Parental reinforcement was inversely related to child behavior problems ( $\beta = -.226$ ,  $p = .003$ ). Parental distress also significantly predicted child behavioral problems ( $\beta = .184$ ,  $p = .047$ ). Two acculturation measures, cultural connections and social networks were significant predictors of child behavior problems ( $\beta = .165$ ,  $p = .027$ ) and ( $\beta = .146$ ,  $p = .050$ ). Both measures were related positively, with more social networks and more cultural connections the more reported child behavior problems. Results indicate that for Puerto Rican families the influence of the parent experience and the interactions between the parent and the child have strong influences on child behavior problems in traumatic family environments. Social work practice has to focus on parenting experiences, managing the stress of the parent, and focus on positive reinforcement of child behavior. Special attention should be paid to the type of social networks maintained by the family to investigate the potential damaging effects on continued exposure to substance use and possible supportive behavior towards IPV. More research on Puerto Rican families, the cultural and family factors associated with child outcomes affected by substance use disorder and intimate partner violence, is necessary and would allow for further interpretation of these results.

### 37. Sexual and Drug-Related HIV Risk Behaviors of Female Sex Workers' Intimate Male Partners in the Mexico-U.S. Border Region: A Descriptive Analysis

**Angela M. Robertson, Ph.D., M.P.H.**, Jennifer Syvertsen, Ph.D., M.P.H., Alicia Vera, M.P.H., Division of Global Public Health, Department of Medicine, UC San Diego; **Gudelia Rangel, Ph.D.**, El Colegio de la Frontera Norte, Tijuana, México; **Gustavo Martinez, M.D.**, Universidad Autónoma de Ciudad Juárez, México; **Steffanie A. Strathdee, Ph.D.**, Division of Global Public Health, Department of Medicine, UC San Diego

Female sex workers (FSWs) face increased risk of acquiring HIV and sexually transmitted infections (STIs) through unprotected sex and risky drug use with commercial and non-commercial (intimate) male partners, yet little research has focused on FSWs' intimate male partners. Prevalence of HIV/STIs has increased among FSWs in Tijuana and Ciudad Juárez, two large cities on the Mexico-U.S. border where FSWs are half as likely to use condoms with intimate partners compared to clients. FSWs' intimate partners may contribute to FSWs' risk of HIV/STI acquisition; thus, we sought to describe their sexual and drug-related risk behaviors

within and outside of their intimate relationships. Proyecto Parejas is a prospective, mixed methods study of the social epidemiology of HIV/STIs among drug-using FSWs and their intimate male partners in Tijuana and Ciudad Juarez. In 2010, outreach workers recruited FSWs in locations where sex work and drug use visibly occurred. Eligible FSWs were  $\geq 18$  years old; ever used hard drugs; were in an intimate relationship for  $\geq 6$  months; and recently had sex with their intimate partner and exchanged sex with clients (past month). Male partners were  $\geq 18$  years old and in verified, non-commercial relationships with eligible FSWs. Interviewer-administered baseline surveys administered using laptops from 2010-2011 covered socio-demographics and sexual and drug-use behaviors within various relationship contexts. We conducted descriptive analyses (frequencies, means) restricted to male partners' baseline data. Among 214 intimate male partners of FSWs (Tijuana:  $n=106$  men; Juarez:  $n=108$  men), median age and educational attainment were 37 years (interquartile range [IQR]:31-43) and 7 years (IQR: 6-9). Median intimate relationship duration with FSWs was 3.0 years (IQR: 1.6-5.5). Men recently used heroin (61%), methamphetamine (29%), cocaine (19%), and crack (11%; past 6 months). Among 123 men who injected any drugs in the past 6 months, 14% shared syringes within their intimate relationships, 17% shared outside of intimate relationships, and 6% shared both within and outside of intimate relationships. Condom use with intimate FSW-partners was rare (median 100% of vaginal sex acts within dyads were unprotected; IQR: 84-100%). Nearly one third of men (30%) reported having sex with women outside of their intimate relationships in the past year. Among 13 men with steady (recurring) outside partnerships in the past year, nearly all (11) reported unprotected sex with those outside partners and their intimate partners during the same time frame. Ten men (5%) received money, drugs or other material goods in exchange for sex with other men, and 12 men (6%) paid for sex with other women in the past year. FSWs' intimate male partners in Tijuana and Ciudad Juarez engage in multiple high risk behaviors. Since condom use within intimate relationships remains low, men's outside, overlapping (concurrent) drug and sexual partnerships have the potential to introduce HIV/STIs into their intimate relationships, placing themselves and their FSW partners at heightened risk. Additional dyadic, social network and qualitative studies are required to inform couple-based intervention approaches could help reduce risk within these severely understudied intimate relationships.

### 38. Family Support and Parental Monitoring as Protective Factors in Mexican American Adolescent Alcohol Use

**Maria Pagan Rivera, Ph.D., L.C.S.W.**, Assistant Professor, CUNY: Borough of Manhattan Community College

This study contributes to the current gap in the literature on generational differences in drinking behaviors among Mexican American youth by identifying predictors as well as protective factors which buffer against alcohol use, frequent drinking and the likelihood of experiencing alcohol-related social problems. Furthermore this study explored precisely what aspects of family support and parental monitoring serves as protective factors. The data used for this study is a secondary analysis of WAVE I of The National Longitudinal Study of Adolescent Health (ADD Health). ADD Health is one of the largest nationally representative data sets available on Mexican American adolescents and it contains information not captured elsewhere. The ADD Health study consisted of a sample of students in grades 7 through 12 attending various schools across the United States in 1994-1995. The age range of the participants was between 12 and 21 years old. Approximately 1551 Mexican American teens participated in this study. Of the 1551 Mexican Americans explored in this study, 1424 were able to be classified as first, second, or third generation. The final data analysis conducted for this article focused on the weighted sample of 1424 Mexican American students in the in-home interview who were categorized by generational

status. Data analysis includes the use of multiple and logistic regression analysis. Findings revealed that Mexican American youth were at higher risk for alcohol consumption with increased generational status. Significant mean differences were found in use of alcohol with U.S. born adolescents having higher rates of drinking compared to first generation youth. Males and youth with higher rates of depression were at increased risk of using alcohol, drinking alcohol frequently, and experiencing social problems as a result of drinking. Aspects of family support and parental monitoring buffered the effects of depression on alcohol use and frequency of alcohol use but did not mediate the effects of gender. The findings of this study contribute to the existing knowledge base on Latino mental health by providing a deeper understanding of how family support and parental monitoring affect alcohol use in Mexican American youth. These findings underscored the importance of family for this Latino population and found important generational differences in levels of depression and alcohol use. This research can provide a useful lens in understanding the complex acculturation process for this population and can contribute to providing culturally competent treatment for Mexican American adolescents.

### 39. FABulous Latino Youth: Ensuring Fairness, Autonomy, and Beneficence When Working with Latino Adolescent Research Participants

**Felisa A. Gonzales, M.Phil.**, *Doctoral Student, George Washington University*

Latino youth are more likely than their peers to use substances and engage in unprotected sexual intercourse. Research on adolescent risk behaviors is important for understanding prevalence and trends in these behaviors and for developing appropriate interventions. However, the acquisition of sensitive data regarding adolescent engagement in risk behavior requires full consideration of the ethical principles put forth in the Belmont Report: justice (fairness), respect for persons (autonomy), and beneficence. Suggestions for the ethical conduct of research with Latino adolescents are summarized. First, the Common Rule (45 CFR 46) and the Additional Protections for Children Involved as Subjects in Research (Subpart D) were thoroughly reviewed. Second, a selective literature review focusing on the ethics of assessing risk behaviors among adolescents was conducted. Institutional Review Boards (IRBs), researchers, parents, community partners, and youth all play a role in determining that fairness, autonomy, and beneficence are achieved in evaluation and research. IRBs may struggle to interpret federal regulations for human subjects when the participants are adolescents, not children or adults. For example, projects involving adolescents in "Research and Demonstration Projects on Public Benefit and Service programs" need not be formally reviewed and approved by IRBs according to 45 CFR 46.101(b)(5). However, all research that aims to produce generalizable knowledge is subject to IRB review. This may lead to confusion when researchers desire to use evaluation data for publication. The perspectives of Latino youth are not included in most evidence-based risk reduction programs. Fairness entails seeking the participation of Latino youth in studies that aim to reduce their risky behaviors and those of their peers through the development of evidence-based programs targeting this population. Community partners can be helpful allies in recruiting youth. Some researchers have argued that parental consent is not always necessary for adolescent participation in behavioral research, particularly when the research involves no more risk than youth encounter in daily life. Additionally, research has shown that adolescents ages 14 and older are as capable as adults to provide informed consent. Steps should be taken to ensure participants understand risks, benefits, and voluntarism. Beneficence entails maximizing benefits to participants while minimizing risk. This analysis must include cultural considerations for youth of color. For example, it is necessary to ensure that incentives are appropriate (not

coercive) for the population. In addition to the typical measures taken to protect privacy during survey administration and to maintain the data confidential, researchers should evaluate whether asking youth about their risk behaviors has any chance of increasing future engagement in these behaviors. The health of Latino youth can be improved by collecting data on patterns and correlates of risk behaviors. Protection of human subjects is not the sole responsibility of IRBs: researchers, parents, community partners, intervention staff, and youth should be prepared to ensure that adolescent participants are fully informed, that youth have a say in whether or not they would like to participate in the research, and that risk is minimized.

#### **40. To Explore the Contextual Factors that Influence Alcohol and Tobacco Initiation among Puerto Rican Adolescents Living in High-Risk Communities**

**Juan L. Negrón-Ayala, Ph.D., M.P.H.**, *Assistant Professor, Department of Social Sciences UPR, Bayamón Campus; Juan C. Reyes, Ed.D., School of Public Health, UPR Medical Sciences Campus & Tomás Matos, M.A., IRESA, Universidad Central del Caribe*

Alcohol and tobacco use among adolescents in Puerto Rico is a public health quandary, whose effects are interrelated with other social maladies such as violence, mental health, and HIV and STD risks, among others. Research shows that alcohol and tobacco initiation context is crucial to understand risk progression to other drugs and potential development of drug abuse and dependence. The main objective is to explore the contextual factors that influence alcohol and tobacco initiation among Puerto Rican adolescents living in high-risk communities. A categorical-content analysis was conducted with 32 semi-structured interviews (12-15 years old female [6] and male [16] adolescents) to explore the relational instances in which alcohol and tobacco initiation are rationalized. Proximal (peer level) and sociocultural (community level) initiation conditions were analyzed. Adolescent narratives reveal a social desirability component that differentially conditioned alcohol and tobacco initiation. Alcohol initiation is inscribed within a social tolerability context mediated by family supervision which consents alcohol use supported by a control rationality. Tobacco use is signified as a destructive vice which displaces the initiation context to peer networks and to the social undesirability sphere. Social desirability emerges as a crucial contextual factor that mediates alcohol and tobacco initiation dynamics among adolescent. Prevention strategies should consider the role of social signifiers in configuring the conditions in which adolescents initiates alcohol and tobacco use.

#### **41. An Examination of Ethnic Differences in the Link between Parenting and Adolescent Adjustment**

**Martha Zapata Roblyer, M.A.**, *Graduate Student, Michael Criss, Ph.D., and Amanda S. Morris, Ph.D., Oklahoma State University*

A number of investigations have shown parenting to be an important predictor of adolescent adjustment. For example, high levels of responsiveness and warmth have been linked to low levels of drug use. While these links have been established in the literature, it is uncertain whether ethnicity moderates this association. For instance, some studies have found significantly higher levels of physical discipline among African Americans compared to European Americans. Research also has suggested that the link between physical discipline and child aggression might be more significant for European Americans than for youth of color. In the current study, we first examined whether there were ethnic differences in the level of parenting, parent-child relationship quality, and adolescent adjustment. Second, we examined whether the link between parenting and adolescent adjustment differed by ethnicity. The sample consisted of 206 families with adolescents (M age = 13.38 years; 51% female; 29.6% European American, 32% African American, 19.4% Hispanic American, and 18.9%

other; Median yearly family income = \$40,000). Licit and illicit drug use, youth antisocial behavior, academic achievement, and parent-youth conflict were based on parent and youth reports. Physical discipline was created using youth ratings, and parent-youth relationship quality was based on observer ratings. First, we computed a series of ANCOVAs, controlling for youth age and gender, to examine whether there were ethnic differences in the level of parenting, parent-child relationship quality, and adolescent adjustment. Results indicated that African Americans had significantly higher levels of physical discipline compared to European Americans. Moreover, African Americans reported significantly lower levels of school grades compared to European Americans and Hispanic Americans. Next, we examined ethnic differences in the link between parenting/parent-child relationship quality and adolescent adjustment. A series of regressions were computed where child age and gender were entered on Step 1, and relationship quality, physical discipline, and conflict were entered on Step 2. The analyses indicated that parent-youth conflict was significantly and positively related to antisocial behavior for Hispanic American and European American youth. In contrast, all three parenting factors were significantly related to antisocial behavior for African Americans in the expected direction. The findings indicated that academic achievement was predicted by relationship quality and conflict for Hispanic Americans, whereas only the conflict factor was significant for European Americans and African Americans. Finally, the results showed that conflict was significantly and incrementally related to substance use for European Americans and African Americans. Interestingly, none of the parenting factors was a significant predictor of drug use for Hispanic Americans. The results demonstrated the relevance of parent-youth conflict in shaping adolescent adjustment across ethnic groups. Contrary to previous studies, physical discipline was significantly and positively related to antisocial behavior for African Americans but not European Americans. Finally, none of the parenting factors was related to substance use for Hispanic Americans, suggesting a need to explore variables influencing drug use among Hispanic youth in developmental contexts outside the family (e.g., peer relationships, neighborhoods).

#### **42. Machismo or Caballerismo: Masculine Norms among Latino Immigrant Day Laborers**

**Nalini Negi, Ph.D., M.S.W.**, *Assistant Professor, University of Maryland School of Social Work; Adrianna Overdorff, MSW, Rich Furman, Ph.D., MSW; University of Maryland School of Social Work*

Global economic and structural shifts have changed labor conditions worldwide leading to the migration of people to look for work outside of their country of origin. Of particular interest in the US context, is migration from Mexico to the United States as it comprises one of the largest immigrant groups. One subpopulation of such Latino immigrants includes mainly younger, undocumented and single men who travel alone into the United States to work in open-ended jobs as day laborers in the informal market. Many of these Latino day laborers (LDLs) transmigrate (or travel back and forth) between Mexico and the U.S. to earn money and to support their families. LDLs often serve as the sole breadwinners for their families and must contend with multiple stressors in this role including poverty and family-separation. While, the literature indicates that men's endorsement of the breadwinner role can contribute to psychological distress, few studies have examined this association among Latinos with even fewer with subpopulations of marginalized men such as the predominantly undocumented LDLs. To this end, this study seeks to add to our understanding of the role of masculine norms in LDLs' lives. We qualitatively explore, through the lived experiences of LDLs who have returned to Mexico from their migration to the US, how this population experiences masculinity in relation to their work and life as well as migration contexts. Case study methodology was used to thoroughly explore masculinity

within the context of transmigration among migrant workers who had returned to their place of origin, Petalcingo, Mexico. Case study allows for thick description of contextual conditions that are relevant to the phenomenon being examined. In addition to interview data, archival information such as extensive field notes and information collected from historical, newspapers and official documents as well as ethnographic notes documenting participant-observation were utilized as sources of data. Participants included six male transmigrants, ranging in age from 29 to 41 years. Although the sample was relatively small, it was appropriate for this descriptive case study. Four themes were elucidated, including: the context of transmigration, Primacy of Work vs. Sacrifices, Autonomy vs. Alienation, and Pursuit of Status vs. Marginalization. These themes reflect how masculine norms were both inhibited and enacted in the process of transmigration. For example, many migrated to the US to serve as breadwinners for their families; however, separation from family prevented them from enacting their roles as fathers or sons. Furthermore, findings indicate that LDLs' work and life conditions provided structural restrictions on LDLs' idealized notions of masculinity whereby many were segmented into low-wage jobs rife with workers' rights exploitation. Findings advance the literature regarding masculine norms by contextualizing the influence of masculine strain on LDLs' health and safety vulnerabilities. Those exploring the health of transmigration should consider gender and masculinity as critical areas of investigation regarding the development of social service and public health programming for immigrant workers.

#### **43. Mexican Adolescent Drug Use: Religiosity as a Protective Factor**

**Marcos J. Martinez, M.S.W.**, *Doctoral Student, Arizona State University; Stephanie L. Ayers, Arizona State University; Flavio F. Marsiglia, Arizona State University*

In 2010, Latino adolescents had one of the highest rates (9.7%) of drug use or dependence among racial/ethnic groups. This carries large significance considering the various health and social consequences associated with drug dependence such as poor academic performance, negative impact on physical and brain development, legal problems, and the potential for abuse of other drugs. It has been reported that youth in Mexico are using drugs at comparable rates as American youth, but there is fewer research that looks at the social processes that occur regarding drug use in that context. More research is needed that examines the various aspects of religion in its role in protecting adolescents from drug use and the way it shapes drug use attitudes. Although much of the prevention research has focused on risk and protective factors, more research is needed that examines the interplay of social support (peer and family), social capital, and culture on Latino adolescent drug use. It is posited that religion can be a form of positive social capital. Due to the significant role of religion in Latino culture, it is argued that certain aspects of religion can potentially be protective against drug use. Religion provides a setting where people share spiritual values and beliefs and it serves as a support system in the community. This study will utilize social capital theory, specifically looking at faith-based social capital. Faith-based social capital has three components in it, which are norms, networks, and trust. The purpose of this study is to assess the relationship between religion and drug use and drug use attitudes among Mexican adolescents. Because religiosity is a dynamic process among Latinos and because it is a multi-faceted construct, it is important to analyze the various components of it to get an idea of how it is operating within a drug use context. This will be a secondary data analysis of a study that took place in Guanajuato, Mexico, where seventh and eighth grade youth participated in a culturally adapted drug use prevention program. The drug prevention program, keeping it REAL, teaches youth drug resistance strategies to assist in deflecting drug offers. The proposed statistical approach is multiple linear regression and five main measures

will be tested. They include religiosity (religious participation, religious salience, religious attendance), lifetime and frequent drug use (alcohol, tobacco, marijuana), and attitudes towards drug use. The proposed statistical approach is multiple linear regression and five main measures will be tested. They include religiosity (religious participation, religious salience, religious attendance), lifetime and frequent drug use (alcohol, tobacco, marijuana), and attitudes towards drug use. This study can help in determining how religiosity operates among a sample of Mexican youth and can provide insight regarding protective factors among Mexican immigrants in the U.S. Limitations of the study include the generalizability to Mexican youth in the U.S. because of differing socio-cultural contexts.

#### **44. From Sex Work to Working Together for Safer Sex: Lessons Learned for a "Big Sister" Model for Health Promotion among Female Sex Workers in Tijuana, Mexico** **Shonali M. Choudhury, Ph.D., M.M.H.**, *Research Assistant Professor, University of Miami, School of Nursing and Health Studies*

For the development of interventions that promote health equities for female sex workers, we need to consider the social environment in which these women live. This presentation reports findings from a grounded theory study in which data was collected with in-depth interviews. The larger study focused on issues of identity, social relationships, power disparities and HIV susceptibility among female sex workers in Tijuana, Mexico. Female sex workers in Tijuana are positioned in particular social environments and are involved in complex social interactions that along with issues of equalities, including health equity and other human rights, shape their health status and well-being. Most of the women who participated in this study were mothers who expressed that being a good mother and supporting their family is their motivation for working in the sex industry and for staying healthy. A health disparities and equality approach to health promotion among this population will support that they identify HIV/AIDS as an important health issue in their lives, but at the same time will highlight that they emphasize that HIV/AIDS is only one of many health and life concerns that they deal with on a daily basis. By only focusing on their sexual and reproductive health, interventions are less likely to gain community "buy-in." Based on the findings from this study and success stories from programs such as the Sonagachi Project in India, the next step is to develop a holistic community-based program that addresses health equity and focuses on how these women identify their health priorities. The idea for a "promotora" or "big sister" model emerged from the data and would seek to empower women so that they have more agencies to use this information and actively protect their health and rights.

#### **45. Ethnic Identity and Acculturation Conflict and their Associations with Contextual Risk and Protective Factors for Adolescent Alcohol and Other Drug Use**

**Lynn Hernández, Ph.D.**, *Assistant Professor; Ana Maria Rodriguez, M.S., Hannah Graves, B.A., Mary Kathryn Cancelliere, M.S., and Anthony Spirito, Ph.D., Brown University, Center for Alcohol and Addiction Studies, Providence, RI*

There are a number of risk and protective factors that have been found to influence alcohol and other drug (AOD) abuse among adolescents. Among the contextual factors, parental monitoring and supervision and affiliation with prosocial peers have been identified as protective factors, while affiliation with deviant peers and perceived peer rejection have been identified as risk factors. For Hispanic adolescents, acculturation conflicts between adolescents and their families have been found to weaken the protective factors associated with AOD use, whereas ethnic identity has been found to strengthen the effects of these protective factors. The current study builds upon these previous findings by examining whether acculturation conflicts and ethnic identity are associated with various indicators of increased and decreased risk for AOD

abuse among Hispanic adolescents. The specific risk and protective factors examined include parental monitoring and supervision and peer affiliations and rejection. The sample included 66 Hispanic adolescents (64.6% male; Mage = 14.94 yrs) recruited to participate in one of three randomized trials examining the effects of a brief motivational intervention on adolescents' AOD use. Approximately 80% of the adolescents were born in the US, whereas 70% of their parents were born abroad. With respect to race, 24.2% identified themselves as Hispanic Black, 55.2% as Hispanic White, and 6.1% identified themselves solely as Hispanic. The present research includes baseline adolescent measures of ethnic identity, acculturation conflict, parental monitoring and sources of parental knowledge, and parent measures of peer relationships and social skills. Significant main effects were found for ethnic identity and several of the indicators of risk and protection. A higher level of ethnic identity was significantly associated with less affiliation with deviant peers, peer rejection, increased affiliation with prosocial peers, and increased levels of parental monitoring via parents asking about the adolescent's activities and communicating with their peers and their peer's parents. While no significant associations were found for acculturation conflict, significant interactions between acculturation conflict and ethnic identity indicate that adolescents with a lower sense of ethnic identity and experiencing high levels of acculturation conflict also experienced more peer rejection and were affiliating with more deviant and AOD using peers. Previous research has identified ethnic identity as a protective factor and acculturation conflict as a risk factor for AOD abuse in Hispanic adolescents. Results from the current study support these findings by demonstrating that ethnic identity is associated with higher levels of parental monitoring and affiliations with prosocial peers and lower levels of affiliations with deviant peers, which in turn may lower risk for AOD abuse. These results, along with significant interactions between ethnic identity and acculturation conflicts, suggest that while acculturation conflicts may have a negative impact on protective factors, ethnic identity may protect against these negative effects. Therefore, prevention and intervention efforts targeted for Hispanic adolescents may benefit from addressing acculturation conflicts that result from acculturation gaps between parents and adolescents by promoting ethnic identity development in Hispanic adolescents.

#### **46. Cannabis Use and Cannabis Use Disorders in a Hispanic Population**

**Claudia Rafful, MSc.,** *Research Partner, & Melanie Wall, Shuai Wang, Carlos Blanco; Department of Psychiatry Columbia University, New York State Psychiatric Institute*

The objective of this study is to determine whether the low risk of drug use disorders among Hispanics found in previous studies can be explained by adapting for cannabis use disorders (CUD) a model originally developed by Kendler model to explain the prevalence of major depressive disorder (MDD). Kendler's model posits that: the etiology of MDD is multifactorial; contemporary risk factors tend to influence each other, and the effect of earlier risk factors (e.g., sexual abuse) is partially mediated through later risk factors such as early-onset anxiety and psychiatric comorbidity. Participants were those with Wave 2 data of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). The primary outcomes were lifetime cannabis use (CU) and 12-month CUD. Respondents were assessed with Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM-IV Version (AUDADIS-IV). Potential risk factors were divided into 5 developmental tiers: childhood, early adolescence, late adolescence, adulthood, and past year. We first compared data from lifetime cannabis users versus drug naïve. We then analyzed whether those with past-year CUD were different from the subsample of lifetime CU. In both cases we obtained: 1) bivariate relationships between each predictor and the corresponding dependent variable; 2) a logistic regression

per tier and 3) a logistic regression model that included the variables that were significant in each tier. All analyses, which were stratified by gender, were estimated using SUDAAN to adjust for the design effects of the NESARC. Compared to Whites, lifetime CU was significantly lower among Hispanics for both females (OR= 0.52; CI 95%= 0.44- 0.62) and males (OR= 0.63; CI 95%= 0.52- 0.75); however, this significance was lost after adjusting for life events and sociodemographic variables. Among those with lifetime CU, risk of past-year CUD was not different among Hispanic females but it was lower for Hispanic males compared to Whites even after adjusting for life events (OR= 0.53; CI 95%= 0.31- 0.93). An adaptation of Kendler's model for MDD was useful in partially explaining what variables mediated the effect on ethnicity on decreased risk of cannabis use and CUD.

#### **ORGANIZATIONAL PARTNERS**

#### **47. Development of Minority Scientists and Media Attention on Minority Health Issues – JustGarciaHill**

**Rodrigo Valles, Ph.D.,** *Associate Program Director, Center for Study of Gene Structure and Function, Hunter College of the City University of New York; Farooq Ahmed, M.F.A., Megan Anderson, B.A., Hunter College of the City University of New York*

Census data from 2010 reveal that the population of U.S. newborns are now largely from historically underrepresented minorities. Although this shift is compelling, the current makeup of the STEM workforce does not mirror this. Similarly, major news outlets only marginally address the health disparities that exist between majority and minority populations. Accordingly, JGH's activities aim to make the national biomedical workforce more diverse and productive. Since its inception, JGH has steadily grown its online community. We now build upon these efforts by promoting person-to-person activities. Our interconnected development and training strategies include goals for recruitment, young scientist education, and interactive media content that enhance traditional training while incorporating techniques for the next generation. Here we report how JGH promotes the professional development of underrepresented minorities in science through a number of interrelated strategies: 1) Highlighting timely articles addressing issues and science related to minorities; 2) Showcasing written and video biographies of successful minority researchers; 3) Promoting productive interactions, online and face-to-face, among minority scientists and would-be scientists; 4) Providing information on summer research, postdoctoral and job opportunities.

# Conference Objectives

The 2012 conference, "Bridging the Gap in Behavioral Health Services for Latinos", focuses on the integration of research perspectives that will guide translational research from bench to bedside, especially in the areas of prevention and treatment strategies of relevance for Latino and other minority populations. More specifically, the conference will include presentations on Drug and Alcohol Addiction, HIV, Mental Health and other chronic health issues.

One major theme of this conference will be on the unique challenges presented by dealing with subpopulations that differ on genetic, social and environmental backgrounds as well as co-morbid disease states. Addressing these issues in this forum will have implications not only for Latinos, but also for other minority populations and communities facing adversity as will be discussed in our Minority Workgroup Panel. The Opening Plenary will be given by Dr. Glorisa Canino, one of the foremost international scholars on the epidemiology of substance disorders, looking at Latino migrant and non-migrant populations. The first panel at this year's meeting will address challenges in identification of need, delivery of care, evaluation of care, and impact of co-morbidities in drug and alcohol abuse populations. This opening panel will provide an overview of the epidemiology as well as the gaps in services and service disparities in Latino populations. The second panel will address challenges in bench-to-bedside drug development, current status of promising potential therapeutics, and challenges in treatment and implementation. The final panel will discuss challenges in transforming specialty medical services into care for drug using or drug-dependent clients, current evidence-based psychosocial, social cognitive and pharmacologic therapies, and ongoing programs for evaluation and improvement of care in international settings. The program also includes Career Development activities for young scientists such as a Pre-Conference Methodology Workshop on social network analysis, an Early Career Social Networking event, a Young Investigator Panel, and a Speed Mentoring Luncheon. We are excited about the distinguished plenary speakers, panelists, and presenters on the program and we encourage attendees to engage them in constructive and incisive discussions. We expect four days of stimulating and interactive scientific discussion, as well as strong networking and wholesome fun – the attributes that characterize our NHSN conferences.

The planning committee for the 2012 conference was focused in designing a scientific program that addresses a variety of scientific issues that are trans-disciplinary in scope, and cover the spectrum of NHSN member interests. A pre-conference session will be led by Dr. Janet Okamoto to provide an introduction and overview of network analysis. We will review relevant applications of network analysis and discuss the rewards and challenges of using this methodology. A new taxonomy of network interventions will also be outlined and discussed.

The 2012 NHSN Conference will feature several special interest breakout sessions of technical and substantive interest to our members, and mentoring and training activities to improve grant writing skills and overall scientific productivity. This will be a very exciting, innovative conference, once again spanning scientific perspectives from basic to applied sciences in all facets of conference activities.

Additional conference goals are to continue to move Hispanic drug abuse science towards interdisciplinary research and to provide mentoring and training activities to promote career development at multiple stages of the scientific trajectory, from graduate student to senior scientist. Activities include a Speed Mentoring Luncheon, Poster Session, Breakout sessions on Research Priorities and Funding Opportunities with NIDA and Young Investigators in Hispanic Drug Abuse Research Panel.

## Continuing Education (CE)

The Biscayne Institutes of Health & Living, Inc. designates this educational activity as providing 17 credit hours toward continuing education for Psychologists, as detailed below.

- September 27: 6 credit hours
- September 28: 8 credit hours
- September 29: 3 credit hours

## Accreditation

This program is co-sponsored by The Biscayne Institutes of Health & Living, Inc. The Biscayne Institutes of Health and Living, Inc. is approved by the American Psychological Association to offer continuing education to psychologists. The Biscayne Institutes of Health & Living, Inc. maintains responsibility for the program and its content.

## 2012 Conference Fees

The NHSN Annual International Conference has costs associated with the conference, such as registration fees, travel, lodging and some meals. The registration fee for the 2012 conference is \$150.00 for Students and \$200.00 for Senior Scientists. Non-member Senior Scientists will be charged \$250.00.

In order to receive the full contact-hour credit for the CE activity, you must:

- Sign in for the session at the registration/continuing education table.
- Be present at the entire session.
- Remain until the scheduled ending time.
- Complete and submit the evaluation form to the registration table before you leave at the conclusion of the session
- Make sure you sign in on the APA CE sheet legibly.

CE certificates will be issued by the NHSN National Office.

## Conflict of Interest

A conflict of interest occurs when an individual has an opportunity to affect educational content about healthcare products or services of a commercial interest with which she/he has a financial relationship. There is no conflict of interest at the NHSN conference.

## Commercial Support

There is no commercial support for this conference. Support is provided by a grant from the National Institute on Drug Abuse.

# Special Thanks

**Ana Anders, L.I.C.S.W.**, *National Institute on Drug Abuse, National Institutes of Health*

**Judith Arroyo, Ph.D.**, *National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health*

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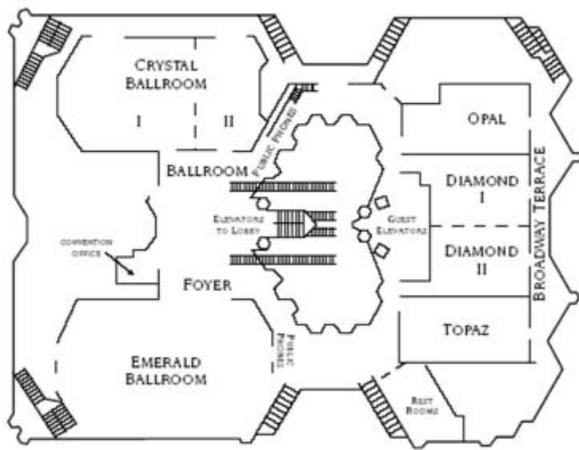
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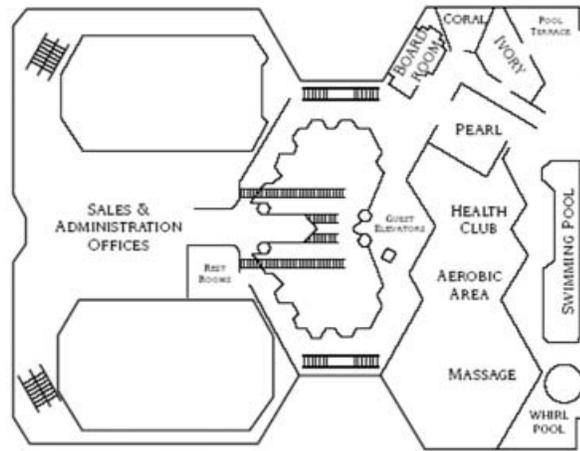


# Conference Room Layout Westin San Diego, San Diego, CA

## CONFERENCE/MEETING ROOMS



SECOND FLOOR



THIRD FLOOR