### NATIONAL HISPANIC SCIENCE NETWORK ON DRUG ABUSE

### **Fifteenth Annual International Conference**

June 24-June 26, 2015 # LaQuinta Inn & Suites Riverwalk #San Antonio, TX

### 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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Department of Physiology
Director, Alcohol & Drug Abuse Center
Louisiana State University Health Sciences Center

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Professor, Harvard Medical School Director, Center for Multicultural Mental Health Research, Cambridge Health Alliance and Harvard Medical School

### James Anthony, Ph.D.

Professor, Department of Epidemiology Michigan State University

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

Professor, Department of Psychiatry & Behavioral Sciences
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### Diana Martínez, M.D.

Associate Professor, Department of Psychiatry Columbia University New York State Psychiatric Institute

### María Elena Medina-Mora, Ph.D.

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### Guillermo Prado, Ph.D.

Leonard M. Miller Professor of Public Health Sciences Director, The Division of Prevention Science and Community Health Department of Public Health Sciences University of Miami Miller School of Medicine

### Yonette F. Thomas. Ph.D.

Association of American Geographers

### Avelardo Valdez, Ph.D.

Professor, School of Social Work University of Southern California

### **EARLY CAREER LEADERSHIP CO-CHAIRS**

### Yessenia Castro, Ph.D.

Assistant Professor, School of Social Work University of Texas at Austin

### Miguel Ángel Cano, Ph.D.

Assistant Professor, Department of Epidemiology Florida International University

## Welcome from the Conference Chairs

On behalf of the Conference Planning Committee and the Steering Committee of the NHSN, we welcome you to the 15th Annual International Conference of the NHSN. This year's conference recognizes the significant challenges in reducing the disparity in health of the nation's ethnic minorities. It also recognizes that we must capitalize on existing opportunities to achieve health equity among racially and ethnically diverse populations.

This year, the Conference Planning Committee identified several special conference themes: 1) Alcohol and Health Disparities: Factors Affecting Alcohol Use and Behavioral Interventions in Minority Populations; 2) The Translational Intersection of Depression and Addiction; 3) Consequences of Stress and Interventions to Address Drug Use in Adolescence and 4) Addressing Multiple Health Risk Behaviors among Latinos. These special themes guided the plenary panels. Each of these panels will feature distinguished scientists and policy makers who have made significant contributions to each of these scientific areas.

The program also includes career development activities for young scientists such as an Early Career Investigator Panel, a Speed Mentoring Luncheon, an exciting career development breakout session and an evening social networking event. Breakout sessions focused on basic science, HIV, Tobacco and Mentoring are also featured in this year's conference.

The planning committee co-chairs depend on a network of individuals who volunteer their time and energy to the NHSN. Again this year, the planning committee consisted of NHSN members outside of the Steering Committee as well as members of the other underrepresented work groups. We would like to give a special thanks to the conference planning committee: Drs. De La Garza, Castro, Cano, Acevedo-Polakovich, Field, Gilpin, Reingle, Gattamorta, Agudelo, Peralta, Arroyo, and Ms. Vidot. Additional thanks to special consultant, Dr. Sulie Chang. A special thanks as well to all those members who volunteered their time to review abstracts for the breakout sessions and poster session. It is also important to recognize Betsy Giaimo for all her efforts in guiding the work of the conference committee. Their efforts are much appreciated. Finally, it is with pleasure that we acknowledge our funders: NIDA, NIAAA, LSUHSC, Seton Hall Institute of NeuroImmune Pharmacology, and UMiami.

In summary, 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 three days of stimulating and interactive scientific discussion, as well as strong networking and wholesome fun – the attributes that characterize our NHSN conferences. Be sure to "Like" the NHSN on Facebook (https://www.facebook.com/ NationalHispanicScienceNetwork?fref=nf) follow @theNHSN on Twitter, and contribute to the highlights, updates, and discussions about the conference using #NHSN2015!

## Wednesday June 24, 2015

### 8:00 AM-5:00 PM REGISTRATION

8:00 AM - 2:30 PM INTERDISCIPLINARY RESEARCH TRAINING INSTITUTE ON HISPANIC DRUG ABUSE PRECONFERENCE WORKSHOP (Fiesta Ballroom A-B-C) (Preregistration required)

**Avelardo Valdez, Ph.D.**, Professor, School of Social Work, University of Southern California (avelardv@usc.edu)

- 8:10AM APPROPRIATE DESIGN MEASURES IN HISPANIC DRUG ABUSE RESEARCH
  Felipe Gonzalez Castro, Ph.D., Professor, Department of Psychology, Arizona State
  University (Felipe.Castro@asu.edu)
- 9:50AM NEW DIRECTIONS ON SUBSTANCE ABUSE AMONG LATINOS

  Joseph Frascella, Ph.D., Director, Division of Clinical Neuroscience and Behavior Research

  NIDA/NIH (jfrascel@nida.nih.gov)
- 11:30AM NEUROSCIENCE AND DRUG ISSUES

  Laura O'Dell, Ph.D., Assistant Professor, Department of Psychology, The University of Texas at El Paso (lodell@utep.edu)
- 1:00PM CAREER PLANS & DEVELOPMENT OF EARLY CAREER DRUG ABUSE RESEARCHERS **Avelardo Valdez, Ph.D.**, *Professor, School of Social Work, University of Southern California* (avelardv@usc.edu)
- 11:45 AM 1:15 PM SPECIAL SESSION NHSN RSA

HIV, ALCOHOL AND HEALTH DISPARITIES (Lone Star E, Grand Hyatt)

CHAIR: **Kendall Bryant, Ph.D.,** Director, HIV/AIDS Research, NIAAA; Scientific Collaborator, Consortia for HIV/AIDS and Alcohol Research Translation (CHAART) National Institute on Alcohol Abuse and Alcoholism National Institutes of Health.

- 11:50 AM THROMBOCYTOPENIA, ALCOHOL AND HIV-ASSOCIATED NEUROIMMUNE DAMAGE

  Maria Miguez-Burbano, M.D. Ph.D., Professor, School of Integrated Science & Humanity, Florida
  International University (mjmiguez@fiu.edu)
- 12:10 PM CHALLENGES WHEN ASSESSING POTENTIAL CAUSES OF RACIAL DISPARITIES IN HIV FROM EXISTING DATA SOURCES

  Robert L. Cook, M.D., Professor of Medicine, Division of General Internal Medicine, University of Florida College of Medicine (cookrl@PHHP.UFL.EDU)
- 12:30 PM IN NEED OF ATTENTION: HAZARDOUS DRINKING AND HIV RISK BEHAVIORS AMONG HISPANIC IN AND OUT OF CORRECTIONAL INSTITUTIONS

  Carmen Albizu, M.D. Physician and Professor, Department of Health Services Administration, University of Puerto Rico, School of Public Health (carmen.albizu@upr.edu)
- 12:50 PM PATTERNS OF ALCOHOL USE IN A GROUP OF HETEROSEXUAL HISPANICS AND ITS RELATIONSHIP WITH UNPROTECTED SEX

  David Perez-Jimenez, Ph.D., Assistant Research Scientist. University of Puerto Rico (dperez@ipsi.uprrp.edu)
- 1:10 PM DISCUSSANT: **Patricia E. Molina, M.D., Ph.D.**, Richard Ashman, Ph.D. Professor and Head Department of Physiology, Director Alcohol and Drug Abuse Center of Excellence, Louisiana State University Health Sciences Center (pmolin@lsuhsc.edu)

Richard De La Garza, Ph.D., 2015 NHSN Scientific Conference Co-Chair

Yessenia Castro, Ph.D., 2015 NHSN Scientific Conference Co-Chair

Miquel Ángel Cano, PhD, MPH, 2015 NHSN Scientific Conference Co-Chair

3:15 PM-4:15 PM PLENARY PRESENTATION (Abstract on p.17)

NIAAA CURRENT PRIORITIES AND FUTURE GOALS: ENGAGING THE NEXT GENERATION OF SCIENTISTS

**George Koob**, **Ph.D.**, Director National Institute of Alcohol Abuse and Alcoholism, National Institutes of Health

4:15 PM-4:30 PM BREAK

4:30 PM-6:00 PM SCIENTIFIC SESSION 1

ALCOHOL AND HEALTH DISPARITIES: FACTORS AFFECTING ALCOHOL USE AND BEHAVIORAL INTERVENTIONS IN MINORITY POPULATIONS (Abstract on p.17) (Fiesta Ballroom A-B-C) CHAIRS: Marisela Agudelo, Ph.D., Assistant Professor, Department of Immunology, Florida International University (magudelo@fiu.edu); Judith Arroyo, Ph.D., Coordinator, Minority Health and Health Disparities, Office of the Director, NIAAA/NIH (jarroyo@mail.nih.gov)

4:35 PM THE ROLE OF IMMIGRATION AGE ON ALCOHOL AND DRUG USE AMONG BORDER AND NON-BORDER MEXICAN AMERICANS

**Jennifer Reingle, Ph.D.** Assistant Professor, Department of Epidemiology, Human Genetics, and Environmental Sciences, University of Texas School of Public Health, Dallas (Jennifer.Reingle@UTSouthwestern.edu)

4:55 PM COMPARATIVE EFFECTIVENESS OF A CULTURALLY ADAPTED BRIEF MOTIVATIONAL INTERVENTION AND NON-ADAPTED BRIEF MOTIVATIONAL INTERVENTION TO REDUCE HEAVY DRINKING AMONG HISPANIC MALES

**Craig Field, Ph.D., MPH,** Associate Professor, Director of the Interdisciplinary Health Behavior Research Consortium, Psychology Department, The University of Texas El Paso (cfield@utep.edu)

5:15 PM AN RAMDOMIZED CLINICAL TRIAL OF GUIDED SELF CHANGE WITH HISPANIC ADOLESCENTS REPORTING SUBSTANCE USE AND AGGRESSIVE BEHAVIOR

**Eric F. Wagner, Ph.D.,** Director of Florida International University's Banyan Research Institute on Dissemination, Grants, & Evaluation (FIU-BRIDGE); Professor, Florida International University Robert Stempel College of Public Health & Social Work (eric.wagner@fiu.edu)

5:35 PM ADAPTATION AND EVALUATION OF A BEHAVIORAL INTERVENTION TO DECREASE ALCOHOL USE AND RISK FACTORS ASSOCIATED WITH HIV TRANSMISSION AND PROGRESSION IN AGING PERSONS LIVING WITH HIV/AIDS

Marco Ruiz, MD, MPH, FACP, FIDSA, Associate Professor, Department of Medicine. Louisiana State University Health Sciences Center, Alcohol and Drug Abuse Center of Excellence (mruiz@lsuhsc.edu)

5:55 PM DISCUSSANT: **Marisela Agudelo**, **Ph.D.**, Assistant Professor, Department of Immunology, Florida International University (magudelo@fiu.edu)

6:00 PM STEERING COMMITTEE ANNUAL MEETING (Invitation only) (Bowie West)



## Thursday June 25, 2015

8:00 AM-5:00 PM REGISTRATION

8:00 AM-9:00 AM PLENARY PRESENTATION (Fiesta Ballroom A-B-C)

PROGRESS, CHALLENGES AND OPPORTUNITIES IN DRUG ABUSE AND ADDICTION RESEARCH Nora D. Volkow, M.D., Director, National Institute on Drug Abuse, National Institutes of Health

9:15 AM-10:45 AM NEW INVESTIGATORS IN DRUG ABUSE RESEARCH (Abstracts on pp. 18-19) (Fiesta Ballroom A-B-C)

CHAIR: Jennifer Reingle, Ph.D., Assistant Professor, Department of Epidemiology, Human Genetics and Environmental Sciences, University of Texas, School of Public Health, Dallas Regional Campus (jennifer.reingle@utsouthwestern.edu)

9:20 AM **CHRONIC** INTERMITTENT **ETHANOL EXPOSURE** AND WITHDRAWAL **ALTERS** ALLOPREGNANOLONE (3A,5A-THP) LEVELS IN GLIAL CELLS IN C57BL/6J MICE Antoniette Maldonado-Devincci, Ph.D., Bowles Center for Alcohol Studies, University of North Carolina, Chapel Hill (tonimd@unc.edu)

9:40 AM ESTROGEN PROMOTES THE REWARDING EFFECTS OF NICOTINE IN FEMALE RATS Rodolfo Flores, Graduate Student, Department of Psychology, The University of Texas at El Paso (rifloresgarcia@miners.utep.edu)

10:00 AM THE COMORBIDITY OF PSYCHIATRIC AND SUBSTANCE ABUSE DISORDERS AMONG HISPANIC **ADOLESCENTS** 

Karina Gattamorta, Ph.D., Research Assistant Professor, University of Miami, School of Nursing and Health Studies (kgattamorta@miami.edu)

BORN IN THE USA: ESTIMATED ANNUAL INCIDENCE RATES FOR USE OF CANNABIS IN THE 21ST 10:20 AM **CENTURY UNITED STATES** 

> Catalina Lopez-Quintero, Ph.D., Post-Doctoral Fellow, Department of Epidemiology and Biostatistics, Michigan State University (clopez@msu.edu)

10:45 AM-11:15 AM TRANSITION

11:15AM -12:30 PM SPEED MENTORING (Fiesta Ballroom D-E-F) Prior registration required

12:30 PM-2:00 PM BUFFETT LUNCHEON (Crockett)

1:30 PM-2:00 PM LUNCHEON PRESENTATION (Abstract on p.19) (Crockett)

10 CAREER ADVICE POINTS

Guillermo Prado, Ph.D., Leonard M. Miller Professor, Director, Division of Prevention Science and Community Health, Department of Public Health Sciences, University of Miami Miller School of Medicine (qprado@med.miami.edu)

2:30 PM - 4:00 PM **SCIENTIFIC SESSION 2** 

> THE TRANSLATIONAL INTERSECTION OF DEPRESSION AND ADDICTION (Abstract on pp.19-20) (Fiesta Ballroom A-B-C) CHAIRS: Miguel Ángel Cano, PhD, MPH, Assistant Professor, Department of Epidemiology, Florida International University (mcanojr@fiu.edu); Nicholas Gilpin, Ph.D., Assistant Professor, Department of Physiology, Louisiana State University Health Sciences Center (ngilpi@Isuhsc. edu)

SOCIAL DEFEAT STRESS INDUCES A DEPRESSION- AND ADDICTION-RELATED PHENOTYPE IN 2:35 PM ADOLESCENT C57BL/6 MICE

Sergio Iñiguez, Ph.D., Associate Professor, Department of Psychology, California State University, San Bernardino (iniguez@csusb.edu)

2:55 PM THE HABENULA AS A BIOMARKER OF TOBACCO ADDICTION AND SUICIDAL IDEATION Ramiro Salas, Ph.D., Assistant Professor, Department of Psychiatry, Baylor College of Medicine (rsalas@bcm.edu)

3:15 PM THE CO-OCCURRENCE OF SUBSTANCE USE DISORDERS AND DEPRESSION: IMPLICATIONS FOR TREATMENT

Carlos Blanco, M.D., Professor, Department of Psychiatry, Columbia Medical Center University; Research Psychiatrist, New York State Psychiatric Institute (cb255@columbia.edu)

SUBSTANCE ABUSE: A SYSTEMATIC REVIEW

Guillermo Bernal, Ph.D., Director, Institute for Psychological Research, University of Puerto Rico, Río Piedras Campus (gbernal@ipsi.uprrp.edu)

COFFEE BREAK AND TRANSITION 4:00 PM-4:15 PM

4:15 PM-5:15 PM BREAKOUT SESSION A

SESSION A1 NEUROBIOLOGY OF STRESS-ALCOHOL INTERACTIONS AND COCAINE-CONDITIONED BEHAVIORS

(Abstract on pp.20-21) (Fiesta A-B-C)

CHAIR: Annie Whitaker, Ph.D., Post-Doctoral Fellow, Department of Physiology, Louisiana State University Health Sciences Center

4:15 PM STRESS-INDUCED NEUROADAPTATIONS OF GLUCOCORTICOID RECEPTOR MACHINERY IN THE PARAVENTRICULAR HYPOTHALAMUS OF RATS

Annie Whitaker, Ph.D., Post-Doctoral Fellow, Department of Physiology, Louisiana State University Health Sciences Center (awhita@Isuhsc.edu)

TAURINE EFFECTIVELY INHIBITS COCAINE PREFERENCE IN MALE AND FEMALE RATS: 4:35 PM CANDIDATE FOR SUD TREATMENT

> Kaliris Salas-Ramirez, Ph.D., Assistant Medical Professor, The Sophie Davis School of Biomedical Education – CUNY Medical School (ksalasram@med.cuny.edu)

THE ENHANCEMENT OF CUE-INDUCED MOTIVATION IN OBESITY-PRONE VS. RESISTANT RATS 4:55 PM IS ACCOMPANIED BY SENSITIZATION TO COCAINE AND INCREASED CP-AMPA RECEPTOR **EXPRESSION IN THE NAC** 

> Carrie Ferrario, PhD, Assistant Professor, Department of Pharmacology, University of Michigan (Ferrario@umich.edu)

SESSION A2 EMERGING MARIJUANA USE RESERACH (Abstract on p.21) (Crockett)

CHAIR: Denise Vidot, Doctoral Student, Division of Epidemiology and Population Health, Division of Epidemiology and Population Health, University of Miami-Miller School of Medicine (dvidot@med.miami.edu)

ABUSE-RELATED EFFECTS OF CANNABIS: DOES SEX MATTER? 4:15 PM

> Ziva D. Cooper, Ph.D., Assistant Professor, Department of Clinical Neurobiology, College of Physicians and Surgeons of Columbia University (zivacooper@gmail.com)

4:35 PM MODIFYING THE MARIJUANA DECISIONAL BALANCE SCALE TO INCLUDE SOCIAL AND MEDICAL REASONS FOR AND AGAINST USING MARIJUANA

Tara Perkins, Doctoral Student, Psychology Department, The University of Texas at El Paso, (tgperkins@miners.utep.edu)

DIFFERENTIAL EXPRESSION AND ACTIVITY PROFILES OF HISTONE DEACETYLASES AMONG 4:55 PM ALCOHOL AND MARIJUANA ABUSERS

Marisela Agudelo, Ph.D., Assistant Professor, Herbert Wertheim College of Medicine, Florida International University (magudelo@fiu.edu)

5:15 PM-5:30 PM TRANSITION

5:30 PM-6:30 PM **BREAKOUT SESSION B** 

SESSION B1 HIV/AIDS ISSUES: EVALUATING RISK FACTORS AND HEALTH OUTCOMES AMONG UNDERSERVED

POPULATIONS (Abstract on p.22) (Fiesta A-B-C)

CHAIR: **Mayra Vargas-Rivera**, **M.D.**, Assistant Professor, School of Integrated Science and Humanity, Florida International University (mvargasr@fiu.edu)

- 5:30 PM LIMITED HIV KNOWLEDGE AMONG HISPANIC ADOLESCENTS RAISES HEALTH CONCERNS

  Mayra Vargas-Rivera, M.D., Assistant Professor, School of Integrated Science and Humanity, Florida
  International University (mvargasr@fiu.edu)
- 5:50 PM THE ASSOCIATION OF SMOKING STATUS AND RACE WITH PHYSICAL FUNCTION IN HIV-INFECTED AND UNINFECTED PATIENTS IN THE VETERANS AGING COHORT STUDY Karen Nieves-Lugo, Ph.D., Postdoctoral Fellow, Department of Psychology, Latino Health Research Center, George Washington University (nieveskaren@email.gwu.edu)
- 6:10 PM COGNITIVE IMPAIRMENT ASSOCIATED WITH GENETIC VARIATIONS IN HIV-INFECTED ADULTS PARTICIPATING IN A RISK-REDUCTION INTERVENTION

  Karina Villalba, Research Associate, Florida International University, Robert Stempel College of Public Health and Social Work (kvill012@fiu.edu)
- SESSION B2 TOBACCO PRODUCT USE AMONG VULNERABLE GROUPS: NEW CHALLENGES (Abstracts on p. 23) (Crockett)

  CHAIR: Irene Tamí-Maury, D.M.D., MSc, DrPH, Instructor, Division of Cancer Prevention, The University of Texas MD Anderson Cancer Center (itami@mdanderson.org)
  - 5:30 PM TOBACCO USE AMONG SEXUAL MINORITIES IN TEXAS

    Irene Tamí-Maury, D.M.D., MSc, DrPH, Instructor, Division of Cancer Prevention, The University of

    Texas MD Anderson Cancer Center (itami@mdanderson.org)
  - 5:50 PM GROUP WATERPIPE TOBACCO SMOKING INCREASES USER TOXICANT EXPOSURE Carolina Ramôa, Ph.D., Postdoctoral Research Fellow, Department of Psychology, Virginia Commonwealth University (cpramoa@vcu.edu)
  - 6:10 PM PARTNERING WITH COMMUNITY HEALTH WORKERS AND KEY OPINION LEADERS TO ADDRESS TOBACCO PRODUCT REGULATION IN LATINO AND OTHER ETHNICALLY DIVERSE COMMUNITIES Robert García, MPH, Graduate Student, University of Southern California (garc617@usc.edu)
  - 7:30 PM Early Career Mixer
    Ruth's Chris Steak House (600 East Market Street, San Antonio, TX 78205)



## Friday June 26, 2015

8:15 AM-9:45 AM

### **SCIENTIFIC SESSION 3**

CONSEQUENCES OF STRESS AND INTERVENTIONS TO ADDRESS DRUG USE IN ADOLESCENCE (Abstracts on pp. 24-25) (Fiesta Ballroom A-B-C) CHAIR: Karina Gattamorta, Ph.D., EdS, Research Assistant Professor, University of Miami, School of Nursing and Health Studies (kgattamorta@miami.edu)

8:20 AM LIFE-LONG NEUROBIOLOGICAL CONSEQUENCES OF PHYSICAL VERSUS EMOTIONAL STRESS IN ADOLESCENT MALE MICE

Carlos A. Bolanos-Guzman, Ph.D., Associate Professor, Department of Psychology and Program in Neuroscience, Florida State University (bolanos@neuro.fsu.edu)

8:40 AM RESULTS OF A RANDOMIZED TRIAL TESTING A NEW ADAPTIVE FAMILY TREATMENT FOR ADOLESCENT DRUG USE

Maite Mena, Psy.D., Research Assistant Professor, School of Education and Human Development, University of Miami (mmena@miami.edu)

9:00 AM USING VIRTUAL AND MIXED REALITY SIMULATIONS INVOLVING AVATARS TO BUILD REFUSAL SKILLS: A ROLE PLAY ALTERNATIVE

Anne E. Norris, Ph.D., Professor, School of Nursing and Health Studies, University of Miami (aen16@miami.edu)

9:20 AM SOCIAL VULNERABILITIES AND THE HIV/AIDS RISK AFFECTING YOUNG LATINO GAY AND **BISEXUAL MEN IN DETROIT METRO** 

Jose Bauermeister, MPH, Ph.D., Assistant Professor, University of Michigan, School of Public Health (jbauerme@umich.edu)

10:00 AM-11:30 AM POSTER SESSION (Fiesta Ballroom D-E-F) Posters numbered 1-32

11:30 AM-1:00 PM NATIONAL NETWORK MEMBERSHIP MEETING AND LUNCHEON (Fiesta Ballroom A-B-C)

PRESENTERS Richard De La Garza, Ph.D., 2015 NHSN Membership Co-Chair Alice Cepeda, Ph.D., 2015 NHSN Membership Co-Chair

> Yessenia Castro, Ph.D., 2015 NHSN Early Career Co-Chair Miguel Angel Cano, PhD, MPH, 2015 NHSN Early Career Co-Chair

Avelardo Valdez, Ph.D., Director, Interdisciplinary Research Training Institute James C Anthony, Ph.D., Director, NHSN Early Career Stage Mentoring for NIDA Research

1:00 PM-2:30 PM

### **SCIENTIFIC SESSION 4**

ADDRESSING MULTIPLE HEALTH RISK BEHAVIORS AMONG LATINOS (Abstracts on pp. 25-26) (Fiesta Ballroom A-B-C) CHAIR: Yessenia Castro, Ph.D. Assistant Professor, School of Social Work, University of Texas at Austin (ycastro@austin.utexas.edu)

1:05 PM SOCIAL INEQUALITIES IN MULTIPLE CHRONIC DISEASE RISK FACTORS AMONG A POPULATION-BASED SAMPLE OF LATINAS IN CALIFORNIA

Catherine Cubbin, Ph.D., Associate Professor, School of Social Work, Faculty Research Associate, Population Research Center, University of Texas at Austin (ccubbin@austin.utexas.edu)

- 1:25 PM ANIMAL MODELS OF ADOLESCENT TOBACCO USE: IMPLICATIONS FOR THE PREVENTION, TREATMENT, AND LONG-TERM CONSEQUENCES OF ADOLESCENT NICOTINE EXPOSURE Laura O'Dell, Ph.D., Associate Professor, Department of Psychology, The University of Texas at El Paso (lodell@utep.edu)
- 1:45 PM TARGETING COMMON PATHWAYS TO PREVENT DRUG ABUSE AND OTHER BEHAVIORAL AND EMOTIONAL DISORDERS AMONG YOUNG PEOPLE: A NEW ERA FOR PREVENTIVE INTERVENTION SCIENCE

Guillermo Prado, Ph.D., Leonard M. Miller Professor, Department of Public Health Sciences, University of Miami Miller School of Medicine (gprado@med.miami.edu)

2:05 PM UNDERSTANDING INTER-RELATIONSHIPS AMONG LINKED BEHAVIORS: DRINKING AND SMOKING CESSATION

**David Wetter, Ph.D.,** Professor and the Elma W. Schneider Chair, Department of Psychology, Rice University (david.wetter@rice.edu)

2:30 PM-2:45 PM TRANSITION

2:45 PM-4:00 PM GRANT WRITING SESSION (Fiesta Ballroom A-B-C)

PRESENTERS Craig Field, Ph.D., Associate Professor, Department of Psychology, The University of Texas at El Paso

(cfield@utep.edu)

Laura O'Dell, Ph.D., Associate Professor, Department of Psychology, The University of Texas at El Paso

(lodell@utep.edu)

Guillermo Prado, Ph.D., Leonard M. Miller Professor, Department of Public Health Sciences, University

of Miami Miller School of Medicine (gprado@med.miami.edu)

4:00 PM-4:15 PM TRANSITION

4:15 PM-5:15 PM BREAKOUT SESSION C

SESSION C1 INTERNATIONAL BREAKOUT SESSION

CHAIR: Avelardo Valdez, Ph.D., Professor, School of Social Work, University of Southern California

4:15 PM FACTORS ASSOCIATED WITH TREATMENT UTILIZATION AND BARRIERS TO TREATMENT IN A

NEIGHBORHOOD IN MEXICO CITY

Miguel Angel Mendoza-Meléndez, Ph.D., Direction of Research and Evaluation, Institute for the Care

and Prevention of Addictions, Mexico City (mmendozam@df.gob.mx)

4:35 PM THE USE OF VIRTUAL REALITY FOR THE ASSESSMENT AND INTERVENTION ON CIGARETTE

**CRAVING** 

Irene Pericot-Valverde, Doctoral Student, Department of Psychology University of Oviedo, Spain

(ipericotvalverde@gmail.com; pericotirene@uniovi.es)

4:55 PM ATTITUDES OF URBAN RESIDENTS TOWARD PERSONS WHO ABUSE DRUGS IN LEON

**NICARAGUA** 

Teresa Aleman, M.D., Centro de Informacion en Demografia y Salud Cids, Unan Leon, Nicaragua

(tealeman@hotmail.com)

4:15 PM-5:45 PM 1.5 Hour MULTIDISCIPLINARY FORUM

SESSION C2 LOW COST, NO HASSLE, HIGH YIELD": A NATIONAL VIRTUAL RESEARCH MENTORING GROUP

CHAIR: Victoria Ojeda, Ph.D., Associate Professor, UCSD School of Medicine

PRESENTERS Victoria Ojeda, Ph.D., Associate Professor, UCSD School of Medicine

Angela Robertson Bazzi, Ph.D., MPH, Assistant Professor; Boston University School of Public Health

Julie Levison, MD, Instructor in Medicine; Massachusetts General Hospital

Sandra P. Arevalo, Ph.D., Post-doctoral Fellow, University of Massachusetts Lowell

Karina Gattamorta, Ph.D., Assistant Professor, University of Miami

Carolina Villamil, MSW, Doctoral Student, Keck School of Medicine, University of Southern California

DISCUSSANT Hortensia Amaro, Ph.D., Associate Vice Provost; Professor of Social Work and of Preventive Medicine,

Keck School of Medicine, University of Southern California

7:30 PM-10:30 PM DINNER DANCE - LA QUINTA INNS & SUITES RIVERWALK (Fiesta Ballroom D-E-F)

## Speaker Biographies



Richard De La Garza, Ph.D. 2015 NHSN Scientific Conference Co-Chair

Dr. De La Garza is Professor with tenure at the Baylor College of Medicine in the Departments of Psychiatry Neuroscience and Pharmacology. He is also Director of Research and Professor in the Department of Psychiatry at the University of Texas M. D. Anderson Cancer Center. Dr. De La Garza conducts laboratory studies in humans to investigate the safety and efficacy of novel pharmacological and behavioral treatments for cocaine and methamphetamine use disorders. He is also interested in cancer prevention as it relates to smoking cessation research, and is evaluating the neurobiological and behavioral effects of electronic cigarettes in cigarette smokers. He has published over 85 peer-reviewed articles and several book chapters. He is past-president of the College on the Problems of Drug Dependence and is a current member of the National Steering Committee for the National Hispanic Science Network.



Yessenia Castro, Ph.D. 2015 NHSN Scientific Conference Co-Chair

Dr. Castro is a clinical psychologist and Assistant Professor in the School of Social Work at the University of Texas at Austin. She conducts disparities-related research among minority and underserved populations, with an emphasis on smoking cessation and alcohol use among Latinos. This includes the development and testing of behavioral interventions and mechanistic research on how cultural variables, including acculturation, gender, and minority status stressors, combine with known key determinants of drug use to affect drug use and relapse. She also collaborates on research examining the influences of a variety of social-cognitive factors on drug use, cessation, and relapse among racially/ethnically diverse groups, individuals of low socioeconomic status, and other special populations.



Miguel Angel Cano, PhD, MPH 2015 NHSN Scientific Conference Co-Chair

Dr. Miguel Ángel Cano is an Assistant Professor in the Department of Epidemiology at Florida International University. His program of research is in the area of health disparities among racial/ethnic groups with an emphasis in Hispanic populations. Dr. Cano's primary research interests include 1) ethnocultural and social determinants of mental health and health behaviors (alcohol use and smoking) associated with chronic disease, 2) syndemic interactions of psychiatric symptoms/disorders and health behaviors, and 3) the development of evidence-based health promotion interventions for underserved racial/ethnic groups.



Patricia E. Molina, M.D., Ph.D. 2015 NHSN Chair & 2015 NHSN Scientific Conference Co-Chair

Dr. Patricia Molina completed her M.D. training at the Universidad Francisco Marroquin in Guatemala, Central America. Thereafter, she pursued a Ph.D. in Physiology at LSUHSC under the mentorship of Dr. John J. Spitzer, presenting her dissertation on "Ethanol-endotoxin interaction with carbohydrate metabolism." Her post-doctoral experience at Vanderbilt University was supported by a NIGMS Minority Supplement Grant under the mentorship of Dr. Naji 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, Ph.D. Professor in Physiology. On September 2008, she was appointed Department Head of Physiology. Dr. Molina's research has been funded continuously since completing her Ph.D. 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 President 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 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.



### George Koob, M.D.

George F. Koob is Director of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) as of January 27, 2014. As NIAAA Director, Dr. Koob oversees a wide range of alcohol-related research, including genetics, neuroscience, epidemiology, prevention, and treatment. As an authority on alcoholism, drug addiction and stress, he has contributed to our understanding of the neurocircuitry associated with the acute reinforcing effects of alcohol and drugs of abuse and the neuroadaptations of the reward and stress circuits associated with the transition to dependence. Dr. Koob has published over 650 peer reviewed papers and several books including the "Neurobiology of Addiction," a comprehensive treatise on emerging research in the field, and a textbook for upper division undergraduates and graduate students called "Drugs, Addiction and the Brain." He has mentored 11 Ph. D students and over 75 post-doctoral fellows.He received his Ph.D. in Behavioral Physiology from Johns Hopkins University in 1972. He spent much of his early career at the Scripps Research Institute as the Director of the Alcohol Research Center, and as Professor and Chair of the Scripps' Committee on the Neurobiology of Addictive Disorders. He has also served as a researcher in the Department

of Neurophysiology at the Walter Reed Army Institute of Research and the Arthur Vining Davis Center for Behavioral Neurobiology at the Salk Institute for Biological Studies.



### Jennifer Reingle, Ph.D.

Dr. Jennifer Reingle is an Assistant Professor in the Department of Epidemiology, Human Genetics, and Environmental Sciences at the University of Texas School of Public Health in Dallas. She earned her doctoral degree in epidemiology from the University of Florida in 2011, and a M.S. degree in criminal justice from the University of Cincinnati in 2007. Dr. Reingle has published more than 60 peer-reviewed articles in journals spanning the disciplines of substance use and abuse, mental health services, and treatment utilization among racial and ethnic minority populations. Her research interests include: violence and delinquency; data-informed public health and criminal justice practice; explaining health disparities in substance use, crime, and violence; instrumentation and screening tool development; and using "big data" sources to track and predict violent events. Her research has been funded by the National Institute on Alcohol Abuse and Alcoholism (NIH/NIAAA), the National Institute on Minority Health and Health Disparities (NIH/NIMHD), and the National Institute of Justice.



## Craig Field, Ph.D., MPH

Dr. Craig Field is Associate Professor in the Psychology Department at the University of Texas El Paso. He is also Director of the Interdisciplinary Health Behavior Research Consortium which is an emerging center focused on addressing alcohol related health disparities among Hispanics. The center conducts interdisciplinary research that integrates the examination of biological markers of chronic stress and their influence on alcohol use disorders and behavior change in a bilingual, bicultural context. Dr Field has conducted alcohol related health disparities research among Hispanics for more than a decade and this research has been funded by the National Institute on Alcohol Abuse and Alcoholism, National Institute on Drug Abuse, National Institute on Minority Health and Health Disparities and other federal agencies including Centers for Disease Control, Substance Abuse Mental Health Services Administration and National Highway Traffic Safety Administration. Dr. Field is currently funded by the Patient Centered Outcomes Research to evaluate the comparative effectiveness of a culturally adapted brief motivational intervention with an evidence based, non-adapted brief motivational version to reduce the public health burden of heavy drinking among Hispanic males.



## Eric F. Wagner, Ph.D.

Dr. Eric Wagner is the Director of Florida International University's Banyan Research Institute on Dissemination, Grants, & Evaluation (FIU-BRIDGE) and a Professor in FIU's Robert Stempel College of Public Health & Social Work. He earned his Ph.D. in Clinical Psychology from the University of Pittsburgh and was a Post-Doctoral Fellow at the Center for Alcohol and Addiction Studies at Brown University. Dr. Wagner is an internationally-recognized expert on brief interventions for alcohol and drug users, with a particular emphasis on teenage, minority, and immigrant populations. His community-based clinical research has been sponsored by the National Institute on Alcoholism & Alcohol Abuse, the National Institute on Drug Abuse, the Substance Abuse and Mental Health Services Administration (SAMHSA), and Consejo Nacional de Ciencia y Tecnología. He has served as an expert for the United Nations, the United States Department of Education, the White House Office of National Drug Control Policy, and SAMHSA on addressing adolescent substance use problems. Dr. Wagner has partnered with public schools in Rhode Island, Florida, and Oklahoma, and the United Keetoowah Band of Cherokee Indians and the Choctaw Nation of Oklahoma, in conducting his research.



### Marco Ruiz, MD, MPH, FACP, FIDSA

Dr. Marco Ruiz is an Infectious Disease, Geriatric Medicine, and Palliative Care and Hospice Medicine physician working in an urban academic HIV clinic. For more than ten years, Dr. Ruiz has been treating HIV infected individuals. His experience with aging HIV patients comes from clinical exposure through development of a clinical Geriatrics-HIV program and from research projects. His research efforts have focused on geriatrics issues in elderly HIV-infected patients and the aging process in HIV positive individuals. Dr. Ruiz is a faculty member of the Louisiana State University Stanley Scott Cancer Center Louisiana State University School of Medicine, where he conducts studies in aging HIV-infected patients affected with non-AIDS-defining malignancies. Dr. Ruiz is a co-investigator in a state-funded research project on aging and frailty syndrome. Dr. Ruiz is currently funded through a diversity supplement U01AA021995-01: HIV/AIDS & Alcohol-Related Outcomes: Translational Evidence-Based Interventions.



### Nora Volkow, M.D.

Nora D. Volkow, M.D., became Director of the National Institute on Drug Abuse (NIDA) at the National Institutes of Health in May 2003. NIDA supports most of the world's research on the health aspects of drug abuse and addiction. Dr. Volkow's work has been instrumental in demonstrating that drug addiction is a disease of the human brain. As a research psychiatrist and scientist, Dr. Volkow pioneered the use of brain imaging to investigate the toxic effects and addictive properties of abusable drugs. Her studies have documented changes in the dopamine system affecting, among others, the functions of frontal brain regions involved with motivation, drive, and pleasure in addiction. She has also made important contributions to the neurobiology of obesity, ADHD, and aging. Dr. Volkow was born in Mexico, attended the Modern American School, and earned her medical degree from the National University of Mexico in Mexico City, where she received the Robins award for best medical student of her generation. Her psychiatric residency was at New York University, where she earned the Laughlin Fellowship Award as one of the 10 Outstanding Psychiatric Residents in the USA.

Dr. Volkow spent most of her professional career at the Department of Energy's Brookhaven National Laboratory (BNL) in Upton, New York, where she held several leadership positions including Director of Nuclear Medicine, Chairman of the Medical Department, and Associate Director for Life Sciences. In addition, Dr. Volkow was a professor in the Department of Psychiatry and Associate Dean of the Medical School at the State University of New York (SUNY)-Stony Brook. Dr. Volkow has published more than 530 peer-reviewed articles and written more than 80 book chapters and non-peer reviewed manuscripts, and has also edited three books on neuroimaging for mental and addictive disorders. During her professional career, Dr. Volkow has been the recipient of multiple awards, including her selection for membership in the Institute of Medicine in the National Academy of Sciences and the International Prize from the French Institute of Health and Medical Research for her pioneering work in brain imaging and addiction science. She was recently named one of Time Magazine's "Top 100 People Who Shape our World" and was included as one of the 20 people to watch by Newsweek magazine in its "Who's Next in 2007" feature. She was also included in Washingtonian Magazine's 2009 and 2011 list of the "100 Most Powerful Women" and named "Innovator of the year" by U.S. News & World Report in 2000.



## Guillermo Prado, Ph.D.

Dr. Guillermo ("Willy") Prado is Leonard M. Miller Professor of Public Health Sciences and the Chief of the Division of Prevention Science and Community Health at the University of Miami Miller School of Medicine's Department of Public Health Sciences. Prado is a trained epidemiologist with expertise and experience in health disparities research, intervention science, and the application of advanced statistical methods to intervention science. Specifically, he has experience in developing, evaluating, and translating preventive interventions for addressing substance abuse and HIV health disparities, and most recently obesity health disparities. His program of research on Hispanic adolescent health has been continuously funded by the NIH since the first year of his doctoral program. He has been Pl. Co-Pl. co-I, mentor. or consultant of prevention studies totally over \$75 million of funding. Prado is currently the Director of Training for the NCI funded South Florida Cancer Health Disparities Center and Co-Chair of the Mentoring and Training Component of the NIDA funded Center for Prevention Implementation Methodology for Drug Abuse and Sexual Risk Behavior. His research has been recognized by the Society for Prevention Research, the Society for Research on Adolescence, and the National Hispanic Science Network. Prado

was also selected by the Miami Herald, in its inaugural class, as one of the Top 20 Business Leaders and Innovators in South Florida under the age of 40 for his research with Hispanic families. Prado is a member of the National Hispanic Science Network's Steering Committee.



### Antoniette Maldonado-Devincci, Ph.D.

Dr. Maldonado-Devincci is currently a Post-Doctoral Fellow at UNC Chapel Hill working in the laboratory of Dr. A. Leslie Morrow. She completed her Ph.D. in 2011 at the University of South Florida in Tampa, Florida where her work focused on the changes in ethanol consumption in adolescent and adult rats. They showed that adolescents show long-term increases in ethanol intake compared to adults. This appears to be related to alterations in the dopamine system following adolescent ethanol exposure.

Currently Antoniette's research focuses on ethanol regulation of neuroactive steroids in mouse and primate monkey models. They have shown across species that chronic ethanol exposure in ethanol-dependent animals decreases the neuroactive steroid allopregnanolone in specific limbic brain regions. Currently they are investigating the specific cell types in which these changes are occurring.



### **Rodolfo Flores**

Rodolfo Flores is a doctoral student in Behavioral Neuroscience at the University of Texas at El Paso, where he conducts research under the mentorship of Dr. Laura E. O'Dell. Currently, he is involved in a project examining the role of ovarian hormones in modulating the rewarding effects of nicotine in female rats. The ultimate goal of this work is to identify the underlying factors that promote tobacco use in women. Rodolfo received his B.A. in Psychology and minor in Chemistry from California State University Long Beach in 2014. Outside of the laboratory, Rodolfo enjoys listening to audiobooks and hiking.



### Karina Gattamorta, Ph.D.

Karina Gattamorta is Research Assistant Professor at the School of Nursing and Health Studies at the University of Miami. She earned her Ph.D. in Educational Research, Measurement, and Evaluation from The School of Education at UM and an EdS in School Psychology from Florida International University. In her current role, she teaches courses in introductory and intermediate statistics, measurement, and research methods in both graduate and undergraduate programs. Throughout graduate school and during the first few years in her current role, the majority of her research focused on measurement issues related to invariance. She was awarded a Diversity Supplement that allowed her to expand on her interests tackling health disparities among Hispanic adolescents, and in particular, the interconnectedness of family functioning, mental health, and substance abuse. More recently, she began pursuing research interests examining the relationships between family functioning, mental health, substance abuse, and risky sexual behaviors in Hispanic lesbian, gay, bisexual, and transgender (LGBT) adolescents. Despite gains in social acceptance, and strides toward equality for sexual minorities in the past decade, LGBT youth continue to have a higher prevalence of mental and behavioral health problems, including suicidal ideation and attempts, depression,

substance use including tobacco, alcohol, and illicit substances, and are more likely to engage in high-risk sexual behaviors. Her research aims to understand and ultimately help reduce or eliminate health disparities in mental health, substance abuse, and HIV risk among this population.



## Catalina Lopez-Quintero, M.D., Ph.D.

Dr. Lopez-Quintero is a T-32 Post-Doctoral Fellow in the Department of Epidemiology and Biostatistic at Michigan State University. Her research has focused on identifying and understanding the mechanisms by which individual, interpersonal, social and cultural factors influence the transitions across the stages of the drug use continuum. Her research has also contributed to document health disparities in the US, particularly regarding substance use (Lopez-Quintero, et al 2006; Lopez-Quintero et al, 2011), HIV/ AIDS (Lopez-Quintero, et al. 2005), and chronic diseases (Lopez-Quintero et al, 2009). As a Principal Investigator of a longitudinal study in Bogota, Colombia, Dr. Lopez-Quintero investigated the process of drug use involvement among 2300 school-attending adolescents (Lopez-Quintero & Neumark 2010, Lopez-Quintero & Neumark 2011, Lopez-Quintero & Neumark 2012, Neumark & Lopez-Quintero 2012, Lopez-Quintero & Neumark 2015). Her other areas of research interests include e-health literacy and mental health. Dr. Lopez-Quintero completed her medical degree at Universidad del Rosario in Bogota, Colombian and her PhD in Public Health at the Braun School of Public Health at the Hadassah-Hebrew University in Jerusalem, Israel. She has previously worked at The Center for Research on U.S. Latino HIV/

AIDS and Drug Abuse (CRUSADA) at Florida International University, the New York State Psychiatric Institute and the Colombian National Institute of Health.



### Sergio Iñiguez, Ph.D.

Sergio Iñiguez, Ph.D. is an Associate Professor of Neuroscience in the Department of Psychology at California State University San Bernardino (CSUSB). Dr. Iñiguez completed his bachelor's and master's degrees in psychology at CSUSB before completing the doctoral program in neuroscience at Florida State University. During his graduate training, Dr. Iñiguez used a variety of pharmacological, genetic, molecular, and behavioral methods to study the neurobiology of mood-related illnesses, using rodents as a model system. He returned to CSUSB in 2011 as a faculty member where he has established a behavioral neuroscience laboratory that examines, at the preclinical level, how early-life exposure to psychotropic drugs and/or social stressors influence responses to mood-, addiction-, and memory-related behaviors in adulthood. Currently, NIGMS (National Institute of General Medical Sciences) and CSUPERB (California State University Program for Education and Research in Biotechnology) financially support the research projects in his laboratory.



### Ramiro Salas Ph.D.

Dr. Ramiro Salas received a PhD from Baylor College of Medicine department of Cellular and Molecular Biology. His postdoctoral work was also at Baylor College, after which he moved from cell biology to tissue work, then to pharmacology and mouse behavior in nicotinic receptor mutants. During these years he found that the habenula (a small brain region responsible for the signaling of negative events) and a very specific set of nicotinic receptors expressed therein, is responsible for some negative effects of nicotine, including withdrawal. Dr. Salasis currently living the dream of many "basic model" scientists, as he is able to test the hypotheses from his mouse work (that habenular activity and connectivity is critical for tobacco abuse) in humans. To do that, he is using functional MRI in non-smokers and in tobacco smokers in deprived and "smoking as usual" conditions. To study the possible mechanisms of the effects observed in fMRI, his lab is also studying genetic variants known or hypothesized to be involved in tobacco abuse. In addition, they are expanding their work to study the habenula and the reward system in people who abuse drugs other than tobacco, and in psychiatric patients including major depression and anxiety patients.



### Carlos Blanco, M.D.

Dr. Carlos Blanco is Professor of Psychiatry at Columbia Medical Center University and Research Psychiatrist at the New York State Psychiatric Institute (NYSPI). He has devoted his career to research on the epidemiology and treatment of addictive disorders and special populations. He has been continuously funded by NIH since the completion of psychiatric residency in 1998 and is the author of over 200 peer-reviewed manuscripts. As a senior faculty member of Columbia University and the New York State Psychiatric Institute, he is immersed in one of the nation's largest centers for research on addictions and other neuropsychiatric disorders, a setting that fosters collaboration with numerous colleagues of diverse expertise and the possibility to mentor junior investigators.



### Guillermo Bernal, Ph.D.

Guillermo Bernal, Ph.D., is Professor of Psychology at the University of Puerto Rico and Director of the Institute for Psychological Research. His work has focused on research, training, and the development of mental health services for ethno-cultural groups. His research is on efficacy trials for depression with Puerto Rican adolescents. He is an early contributor to the dialogue on cultural adaptations of EBTs. Since 1992, his team has generated evidence on the efficacy of culturally adapted CBT and IPT, carried out translations and development of instruments, and published on factors associated to vulnerability of depression. His cultural adaptation framework has served as a guide to many in the field of psychotherapy research. Bernal is a Fellow of APA Divisions 45, 12, and 27 and member of 29 and 43 and is a member of the Caribbean Alliance of National Psychological Associations (CANPA). In 2013 co-edited a special issue on Psychology in the Caribbean (with Ishtar Govia). His recent co-edited books are: Culturally Adaptations: Tools for evidence based practice with diverse populations (APA Books) and Clinical case studies in Puerto Rico (Publicaciones Puertorriqueñas).



### Carlos Bolaños-Guzman, Ph.D.

Carlos Bolaños-Guzmán is Associate Professor in the Department of Psychology and Program in Neuroscience at Florida State University. He is the 2013 recipient of the Nancy Marcus Professorship, which "supports and recognizes a superior researcher at FSU with a demonstrated extraordinary commitment to students from groups underrepresented in math and science and attract them to and advance their career in these fields." Dr. Bolaños-Guzmán's research focuses on assessing how exposure to drugs, whether illicit and/or prescribed, and stress, whether physical or emotional, affect gene expression to render the organism vulnerable or resilient to drug use/abuse and/or stress later in life using animal models. Work from his laboratory has appeared in journals such as Biological Psychiatry, Neuropsychopharmacology, The Journal of Neuroscience, Nature Neuroscience, and Science, and has been funded by the National Institute on Drug Abuse (NIDA), the Brain & Behavior Research Foundation (NARSAD), and Florida Department of Health. He received his Ph.D. in Experimental Psychology and Neuroscience from Northeastern University in Boston, Massachusetts, and he did postdoctoral work in Molecular Psychiatry at Yale University School of Medicine, and the University of Texas. Southwestern Medical Center in Dallas, TX. The overall research

goal is to establish causal relationships between early-life experiences, brain, biochemistry, and behavior to better understand ways in which the developing and adult brain responds to environmental, pharmacological and genetic manipulations resulting in pathological conditions later in life.



### Jose Bauermeister, MPH, Ph.D.

Dr. Jose Bauermeister is the John G. Searle Assistant Professor of Health Behavior and Health Education (HBHE), and Director of the Center for Sexuality & Health Disparities (SexLab) at the University of Michigan's School Of Public Health. Originally from San Juan, Puerto Rico, Dr. Bauermeister completed his MPH and PhD in Public Health from the University of Michigan. Prior to joining the HBHE faculty, Dr. Bauermeister was a NIH postdoctoral fellow in the HIV Center for Clinical and Behavioral Studies at Columbia University. Dr. Bauermeister's work explores the role that sexuality and risk behaviors play in youths' lives, and how those experiences transform into HIV/AIDS vulnerability. Since 2010, Dr. Bauermeister has led an academic-community partnership (UHIP) focused on addressing the structural barriers fueling the HIV/STI disparities faced by Black and Latino YMSM in the Detroit Metro Area. This work has led to the development of Mfierce, a 3-year structural intervention project funded by the Centers for Disease Control and Prevention (CDC), and an online HIV/STI testing intervention for YMSM in Southeast Michigan (Get Connected!). Dr. Bauermeister serves in the Editorial Boards of the Journal of Youth & Adolescence, Archives of Sexual Behavior, AIDS and Behavior, and Health Education & Behavior.

He is Past Chair of the American Public Health Association's HIV/AIDS Section.



## Maite Mena, Psy.D.

Dr. Maite P. Mena is a licensed Clinical Psychologist and Research Assistant Professor at the University of Miami School of Education and Human Development. She has extensive experience in working with minority populations experiencing health disparities and in implementing programs and evaluating their outcomes. Dr. Mena's research interests include vulnerable populations, primarily Hispanic youth and their families in the areas of mental health disorders, prevention and treatment of substance abuse disorders, HIV and sexually risky behaviors, and cultural stressors. Over the past 15 years, Dr. Mena has focused on identifying the unique needs of the Hispanic community and developing a culturally competent intervention that specifically addresses these needs. She has specialized in developing and testing a culturally informed family therapy for minority populations (CIFFTA) focusing on families affected by substance abuse, co-occurring psychiatric disorders, and cultural stressors. Dr. Mena has collaborated on writing grants which have resulted in roles such as, co-principal investigator, co-investigator, and project director on several National Institute on Drug Abuse (NIDA) and NIMHD funded randomized clinical trials. This work has led to publications on the theory and development of a family treatment for drug abusing Hispanic youth, cultural issues impacting this population, and the treatment of co-occurring disorders in adolescents. A current Substance Abuse and Mental Health Services Administration (SAMHSA) grant has led Dr. Mena to acquire

expertise in the training and dissemination of Screening, Brief Intervention and Referral to Treatment (SBIRT), an evidence based practice. Dr. Mena works collaboratively with a community organization which focuses on reducing health disparities in the Hispanic community. As a result of her work in the community, Dr. Mena received an award for Excellence in Partnership from the community organization in 2013.



### Anne E. Norris, Ph.D.

Anne E. Norris, PhD, RN, FAAN earned her PhD in Nursing and Psychology from the University of Wisconsin-Madison in 1988 with specialization psychiatric/mental health nursing (masters level) and social psychology (doctoral level). She has been conducting research regarding adolescent and young adult sexual behavior for over 25 years. She is particularly interested in the role that culture and other social influences play in health behavior and in the use of gaming and simulation for health promotion. Her other research interests include statistics and instrument development. Dr. Norris recently completed a R15 funded feasibility trial for Mighty Girls, a promising pregnancy prevention intervention for middle school Latinas that uses DRAMA-RAMA, a live simulation game involving avatars, for peer resistance skill building. A R01 funded efficacy trial involving 7th grade Latinas enrolled in Miami-Dade public schools is planned to start in 2015. In addition to adapting the Mighty Girls program for boys and other groups of girls, and exploring uses for a technology that simulates live human interactions, Dr. Norris has two other technologies early in development that address childhood obesity (touchscreen human physiology simulation for clinic or school setting; mobile game app).



### Catherine Cubbin, Ph.D.

Dr. Catherine Cubbin is Associate Professor in the School of Social Work, and a Faculty Research Associate at the Population Research Center, at the University of Texas at Austin. Dr. Cubbin received her PhD in Health and Social Policy from the Johns Hopkins University Bloomberg School of Public Health in 1998. She was trained as a CDC pre-doctoral fellow at the National Center for Health Statistics and as an NIH postdoctoral fellow at the Stanford Prevention Research Center. Dr. Cubbin's research focuses on using epidemiological methods to better understand social inequalities in health for the purpose of informing policy. From 2001-2006, she was an NIH Health Disparities Scholar, and since 1997, she has been a coordinating committee member of the Spirit of 1848, a caucus of the American Public Health Association, which focuses on the intersection between public health and social justice. She was named as a Champion of Diversity by UCSF and was a recipient of a Diversity Mentoring Fellowship award, given by the Graduate School at UT Austin on a competitive basis to promote diversity among the graduate student body. She is also an Associate Editor for Health & Place and a grant reviewer for the American Cancer Society.



### Laura E. O'Dell, Ph.D.

Dr. Laura O'Dell is Associate Professor in the Department of Psychology at The University of Texas at El Paso (UTEP). She is also an adjunct faculty member of the Biology Department. She received her Ph.D. in Behavioral Neuroscience from Arizona State University. She conducted her post-doctoral training at The Scripps Research Institute. Dr. O'Dell's research program is focused on the neural mechanisms that promote tobacco use in vulnerable populations, such as adolescents, females, and persons with diabetes. Her laboratory combines neurochemical and molecular approaches with behavioral models to study the neural basis of addiction. Her research program is supported by a R01 grant from the NIDA and a Basic Science Award from the American Diabetes Association.



### David Wetter, Ph.D.

David Wetter, Ph.D. is a Professor and the Elma W. Schneider Chair in the Department of Psychology at Rice University. His work is targeted at eliminating disparities in health-related behavior through translational research. Specific research foci include: theoretical models of addictive and cancer risk behaviors; the development and evaluation of theoretically-based interventions; and, translational research to implement and disseminate those interventions in real world settings. His research spans the continuum from cells to society, and focuses on high-risk and underserved populations, with a major focus on low socioeconomic status individuals, minorities, and women. Dr. Wetter has an extensive NIH-funded grant portfolio and over 170 peer-reviewed publications. His research program has received awards from the Society of Behavioral Medicine, American Society for Preventive Oncology, the Health Psychology Division of the American Psychological Association, and the University of Texas MD Anderson Cancer Center. Dr. Wetter earned his Ph.D. in Clinical Psychology and a M.S. in Epidemiology from the University of Wisconsin - Madison. He has a joint appointment in the Department of Health Disparities Research at MD Anderson and an adjunct appointment at The University of Texas School of Public Health.

### Abstracts for Oral Presentations

Wednesday 24 June 2015

8:00 AM - 2:30 PM

INTERDISCIPLINARY RESEARCH TRAINING INSTITUTE

### Avelardo Valdez and Alice Cepeda

In conjunction with the NHSN, the IRTI will host a one day preconference workshop on Wednesday, June 24th, Day 1 of the 2015 NHSN Annual Conference in San Antonio, Texas. This workshop will be a condensed version of the IRTI Summer Training and will focus on science and career development of early career scientists interested in conducting research on drug abuse among Hispanic populations. The invitation to register for this event will be sent exclusively to the NHSN membership. This will be a competitive program and interested members will need to apply. The pre-conference workshop will be broken up into four 90 minute sessions focusing on Hispanic drug abuse research design, trends on drug use among Hispanics, neuroscience and drug issues, and career development (see details below).

3:15 PM-4:15 PM PLENARY PRESENTATION

NIAAA CURRENT PRIORITIES AND FUTURE GOALS: ENGAGING THE NEXT GENERATION OF SCIENTISTS

### George Koob

Alcohol use disorders (AUDs) cause an enormous amount of human suffering, loss of productivity and cost to our medical care system. NIAAA studies key elements of the impact of alcohol use disorders throughout the lifespan including highly innovative programs in fetal alcohol spectrum disorder and alcoholic liver disease. A conceptual framework of alcoholism as a three-component cycle composed of a binge/intoxication stage, a withdrawal/negative affect stage, and a pre-occupation/ anticipation (craving) stage has allowed identification of key neurocircuits underlie addiction to alcohol and many other drugs. Each stage of the addiction cycle is hypothesized to be mediated by a different neurobiological circuit where the binge-intoxication stages involves recruitment of reward neurotransmission in the basal ganglia, the withdrawal-negative affect stage involves loss of reward neurotransmission and gain of stress neurotransmission in the extended amygdala and the preoccupation-anticipation stage involves loss of prefrontal cortical function. Three key neuropathological elements are hypothesized to parallel the three stages of the addiction cycle to provide a powerful impetus for the compulsive drug-seeking behavior associated with AUDs: increases in incentive salience in the binge-intoxication stage, decreases in reward function and sensitization of brain stress systems in the withdrawal negative affect stage and disruption of prefrontal executive function, in the preoccupation-anticipation (craving) stage. Given the multiple stages and presentations of AUD, there is increasing focus on clinically relevant endophenotypes for these neurobiological mechanisms that ultimately may lead to better diagnosis and biomarkers of vulnerability. The combination of dysregulated incentive salience-reward function, sensitized stress systems and disrupted orbitofrontal/prefrontal executive function provides a key heuristic framework for developing novel treatments for addiction particularly in the domain may of stress and negative affect regulation. Of high priority with NIAAA will be the identification of common elements in these negative affect systems relative to co-morbidity with other mental disorders such as post-traumatic stress disorder. Given that the frontal cortex does not fully develop until age 25, understanding the neurocircuitry neuroadaptations in executive function systems will provide new insights into identifying vulnerability to addiction in adolescents. Of high priority with NIAAA is the understanding of the pathological trajectory of adolescent alcohol use for science based novel approaches to prevention and treatment of alcohol use disorders in adolescence. Advances in the neuroscience of alcohol use disorders are leading the way to significant evidence based diagnosis, treatment and prevention of alcohol

use disorders. Critical to the implementation of these priorities and the continuation of existing vibrant programs will be the engagement of young new scientists trained in the modern skills of neuroscience, biology, neuropsychopharmacology, molecular biology and genetics. Especially important to move to "out of the box", highly innovative science will be engagement of minorities and women in these efforts.

4:45 PM - 6:15 PM

ALCOHOL AND HEALTH DISPARITIES: FACTORS AFFECTING ALCOHOL USE AND BEHAVIORAL INTERVENTIONS IN MINORITY POPULATIONS

### Marisela Agudelo

The Alcohol and Health Disparities Panel, sponsored by NIAAA, will cover factors affecting alcohol use such as immigration age in Mexican Americans and several behavioral interventions to reduce alcohol use in minority populations including brief culturally adapted and non-adapted motivational intervention in Hispanic males, Guided Self-Change's effectiveness in Hispanic adolescents, and a Holistic Health Recovery Program to decrease alcohol use in aging people living with HIV/AIDS (PLWHA). Briefly, Dr. Reingle will discuss the role of immigration age on alcohol and drug use among Mexican Americans. Her findings show that participants who immigrated to the United States at younger ages have different alcohol and drug related outcomes compared to those who immigrated later in life. Dr. Field will be comparing a culturally adapted and non-adapted brief motivational intervention using a community based participatory research approach among heavy drinking Hispanic males in a bilingual, bicultural context. Dr. Wagner will be discussing evidence-based interventions in Hispanic adolescents reporting substance use and aggressive behavior. Dr. Wagner's findings support Guided Self-Change's (GSC) effectiveness as an early intervention approach with minority youth. Dr. Ruiz will be explaining a behavioral intervention to decrease alcohol use and risk factors associated with HIV transmission and progression in aging PLWHA in an universitybased outpatient HIV clinic and he will also described the Holistic Health Recovery Program. Overall, these presentations provide a common framework of alcohol abuse research among minority populations emphasizing several factors affecting alcohol abuse and effective behavioral interventions.

# THE ROLE OF IMMIGRATION AGE ON ALCOHOL AND DRUG USE AMONG BORDER AND NONBORDER MEXICAN AMERICANS - Jennifer Reingle

To determine the age of immigration at which the marked increase in risk for alcohol and drug use in adulthood is observed among Mexican American adults residing in 2 distinct contexts: the U.S.-Mexico border, and cities not proximal to the border. We used 2 samples of Mexican American adults: specifically, 1,307 who resided along the U.S.-Mexico border, and 1,288 non-border adults who were interviewed as a part of the 2006 Hispanic Americans Baseline Alcohol Survey study. Survey logistic and Poisson regression methods were used to examine how immigration age during adolescence is related to alcohol- and drug-use behavior in adulthood. We found that participants who immigrate to the United States prior to age 14 have qualitatively different alcohol- and drug-related outcomes compared to those who immigrate later in life. Adults who immigrated at younger ages have alcohol- and drug-use patterns similar to those who were U.S.-born. Adults who immigrated at young ages and reside distal from the U.S.-Mexico border are at greater risk for alcohol and drug use than those who live in border contexts. Conclusions: Immigration from Mexico to the U.S. before age 14 results in alcohol- and drugrelated behavior that mirrors the behavior of U.S.-born residents, and the alcohol- and drug-use.

### COMPARATIVE EFFECTIVENESS OF A CULTURALLY ADAPTED BRIEF MOTIVATIONAL INTERVENTION AND NON-ADAPTED BRIEF MOTIVATIONAL INTERVENTION TO REDUCE **HEAVY DRINKING AMONG HISPANIC MALES - Craig Field**

This presentation will provide the background and rationale for evaluating the comparative effectiveness of a culturally adapted brief motivational intervention among heavy drinking Hispanic males. Research findings from the first randomized trial that was sufficiently powered to determine ethnic differences in drinking outcomes following brief motivational intervention in the medical setting will be presented. These results led to the current research funded by the Patient Centered Outcomes Research Institute to compare a culturally adapted and non-adapted brief motivational intervention among heavy drinking Hispanic males in a bilingual, bicultural context. The theoretical framework and specific aims for the currently funded research will be described. In addition, the process for developing the cultural adaptation using a community based participatory research approach will be described and recent results of qualitative research and their implication for the refinement of the cultural adaptation to be tested in a comparative effectiveness trial will be presented.

### AN RAMDOMIZED CLINICAL TRIAL OF GUIDED SELF CHANGE WITH HISPANIC ADOLESCENTS REPORTING SUBSTANCE **USE AND AGGRESSIVE BEHAVIOR - Eric F. Wagner**

Adolescent substance use problems are strongly associated with interpersonal aggression. Such co-occurring problems disproportionately impact minority youth, who have limited access to evidence-based interventions. With NIAAA support, we evaluated Guided Self-Change's (GSC) effectiveness with a sample of 514 high school students (mean age 16.24 years, 41% female, 80% minority) reporting using substances and perpetrating aggression. SEM analyses revealed that GSC participants, compared to standard care participants, showed significant reductions (p < .05) in: (a) total number of alcohol use days (Cohen's d =0.45 at post-treatment, and 0.20 at 3-months post-treatment); (b) drug use days (Cohen's d =0.22 at post-treatment, and 0.20 at 3-months post-treatment); and, (c) aggressive behavior incidents (Cohen's d =0.23 at post-treatment). These treatment effects did not vary by gender or ethnicity, and support GSC's promise as an early intervention approach with minority youth.

### ADAPTATION AND EVALUATION OF A BEHAVIORAL INTERVENTION TO DECREASE ALCOHOL USE AND RISK FACTORS ASSOCIATED WITH HIV TRANSMISSION AND PROGRESSION IN AGING PERSONS LIVING WITH HIV/AIDS -

This presentation will provide the background and rationale for adapting and evaluating a behavioral intervention to decrease alcohol use and risk factors associated with HIV transmission and progression in Aging PLWHA in an universitybased outpatient HIV clinic Research findings from a recent retrospective study conducted by our group found that 18% of patients >50 years are affected by substance abuse. So far, no interventions have been studied to reduce alcohol abuse in this population. These results led to the current research funded by U01AA021995-01 parent grant to adapt and evaluate a behavioral intervention to decrease alcohol use and risk factors associated with HIV transmission and progression in Aging PLWHA. The theoretical framework and specific aims for the currently funded research will be described. In addition, the process for adapting and evaluating the intervention, the Holistic Health Recovery Program, (HHRP+AUD50), will be described. Recent results of qualitative research and their implications for the refinement of the intervention will be presented.

Thursday 25 June 2015 8:00 AM - 9:15 AM PLENARY PRESENTATION

### PROGRESS, CHALLENGES AND OPPORTUNITIES IN DRUG **ABUSE AND ADDICTION RESEARCH - Nora Volkow**

Recent scientific advances have increased our understanding of the biological, developmental, and environmental factors involved in drug abuse and addiction and are stimulating further explorations into increasingly targeted strategies for their prevention and treatment. This presentation will highlight a selection of recent scientific advances, provide an update on a number of relevant policy and research initiatives currently being supported by the National Institutes of Health and the National Institute on Drug Abuse, and describe some of the most pressing challenges currently confronting the drug abuse and addiction field and solutions that show promise in effectively addressing them.

9:30 AM - 11:00 AM NEW INVESTIGATORS IN DRUG ABUSE RESEARCH Jennifer Reingle Gonzalez and Cristina Bares

### CHRONIC INTERMITTENT ETHANOL EXPOSURE AND WITHDRAWAL ALTERS ALLOPREGNANOLONE (3A,5A-THP) LEVELS IN GLIAL CELLS IN C57BL/6J MICE - Antoniette Maldonado-Devincci

The most widely studied GABAeraic neuroactive steroid (3α.5α)-3hydroxypregnan-20-one (3α,5α-THP, allopregnanolone) is altered during ethanol withdrawal in humans, rats and mice. It has long been proposed that 3α,5α-THP is produced de novo in the brain. However, cell-type specific analysis of 3α,5α-THP has not been conducted. Recently, we observed chronic intermittent ethanol (CIE) exposure decreases 3α,5α-THP levels in limbic and cortical brain regions following withdrawal. In this work, we aim to identify specific cell type markers that co-localize with 3α,5α-THP in CIEexposed mice. Adult male C57BL/6J mice received 4 cycles of CIE or air exposure (16 hr/day x 4 days) followed by withdrawal. All mice were sacrificed and perfused 72 hr following the final exposure cycle. Free floating brain sections (40 µm; 3 sections/region) were used for immunofluorescence labeling. In this experiment, we conducted co-localization analysis for the oligodendrocyte marker, CNPase, with positive  $3\alpha,5\alpha$ -THP immunofluorescence in the lateral amygdala (LA). Eight confocal stacks were obtained for each section/hemisphere and were projected into single images using average fluorescence intensity. For co-localization analysis, cells were counted in grayscale images for each wavelength and the percentage of cells that overlapped was calculated for each mouse (n=3/gp). Preliminary results indicate that 80.1±1.3% of 3α,5α-THPpositive cells co-labeled with CNPase in the LA of control mice. In contrast, 70.3±1.3% (p<0.05) of 3α,5α-THP-positive cells co-labeled with CNPase in the LA of the CIE-exposed mice. To quantify intensity of cellular staining between groups, average fluorescence intensity was calculated on 4 randomly selected cells in each image for each wavelength. There were no differences in 3α,5α-THP or CNPase fluorescence intensity between air-exposed and CIE-exposed mice. These results suggest that fewer 3α,5α-THP positive cells co-label with oligodendrocytes following CIE exposure. However, cellular levels of 3α,5α-THP and CNPase (fluorescence intensity) were not different between groups, indicating the amount of each cell marker is similar within an individual cell. We are continuing our analysis with other cell-type specific markers and other brain regions that showed reductions in 3α,5α-THP immunolabeling following CIE exposure. These results will provide important information regarding ethanol regulation of 3α,5α-THP levels in various cell types in brain.

### ESTROGEN PROMOTES THE REWARDING EFFECTS OF **NICOTINE IN FEMALE RATS - Rodolfo Flores**

Previous work in our laboratory has shown that the rewarding effects of nicotine are greater in female versus male rats. However, it is unclear whether the latter effect is modulated via ovarian hormones, such as β-estradiol (E2) in rats. To address this question, we conducted two studies comparing the rewarding effects of nicotine using an extended access procedure to nicotine intravenous self-administration (IVSA). Study 1 compared nicotine IVSA in intact versus ovariectomized (OVX) female rats. The rats received OVX procedures at post-

natal day 45, which is prior to the beginning of regular estrous cycling in female rodents. In order to examine the effects of E2 in modulating nicotine reward, study 2 compared nicotine IVSA in OVX females that received E2 supplementation (OVX+E2) or vehicle (OVX+vehicle) throughout the IVSA procedures. After the OVX surgery, the OVX+E2 rats immediately began a supplementation procedure that involved two consecutive days of E2 (0.25 mg) injections followed by two days of vehicle injections. For the operant procedures, the animals were first trained to perform nose-poke responses for food and water delivery for 5 days. The animals were then implanted with a jugular catheter for the IVSA procedures. Following a fourday recovery period, the rats were then given 23-hour access to nicotine IVSA using an escalating dose regimen (0.015, 0.03 and 0.06 mg/kg). Each dose was self-administered for four days with three intervening days of drug abstinence. The results from Study 1 revealed that intact females displayed significantly higher levels of nicotine intake as compared to OVX females across all nicotine doses. The results from study 2 revealed that the latter effect is likely E2-mediated. Specifically, OVX rats that received E2 supplementation displayed significantly higher levels of nicotine intake as compared to OVX rats that received vehicle. Taken together, our data suggest that the rewarding effects of nicotine are enhanced in female rats via the ovarian hormone E2.

# THE COMORBIDITY OF PSYCHIATRIC AND SUBSTANCE ABUSE DISORDERS AMONG HISPANIC ADOLESCENTS - Karina Gattamorta

The comorbidity of psychiatric disorders and substance abuse disorders among adolescents and adults are well-documented in the literature (Rowe, Liddle, Greenbaum, & Henderson, 2004). Adolescent substance abusers with comorbid psychiatric disorders have been found to have earlier onset of substance abuse, greater frequency of use, and report more chronic use than those without psychiatric disorders (Rowe et. al, 2004). The current study investigates the relationship between psychiatric and substance use disorders in a sample of Hispanic adolescents. The study uses baseline data (N=170) from a randomized clinical trial testing the effectiveness of a family-based treatment for Hispanic adolescents with substance abuse disorder (CIFFTA). The relationship between psychiatric disorders as measured by the DISC Predictive scales and substance use patterns at baseline including: (a) types of substances used, (b) age of onset of substance use, and (c) frequency of use are examined. These analyses were conducted using Chi-square and t-tests to examine differences in substance use patterns by psychiatric disorders. Our results indicate that 97% of the sample used marijuana, 72% used alcohol, 47% smoked cigarettes, 26% used benzodiazepines, 19% used amphetamines, 16% used cocaine, and 22% used other illicit substances. When examining the relationship between psychiatric disorders and patterns of drug use, our findings revealed that psychiatric diagnoses (anxiety, depression, ADHD, conduct disorder, and oppositional defiant disorder [ODD]) were not associated with higher rates of marijuana, alcohol, or cigarette use in our sample. However, conduct disorder, anxiety, and ODD were associated with higher rates of benzodiazepine use, and depression was associated with higher rates of amphetamine and other illicit drug use. An analysis of age of onset revealed that adolescents with ADHD initiated marijuana use earlier and adolescents with ODD initiated alcohol, marijuana, and cigarette use earlier. Moreover, ADHD and ODD were also related to greater frequency of use. Findings from this study can be used to help inform the treatment of adolescents seeking mental health and substance use services.

# BORN IN THE USA: ESTIMATED ANNUAL INCIDENCE RATES FOR USE OF CANNABIS IN THE 21ST CENTURY UNITED STATES - Catalina Lopez-Quintero

Cannabis smoking trends in the United States (USA) apparently do not affect all population subgroups equally. As part of our NIDA "Born in the USA" environmics research program, we aim to estimate the degree to which US-born young people might be more likely to start using

internationally regulated drugs (IRD), versus peers born abroad in 18 diverse self-ethnic identified subgroups in the US. Here, the focus is newly incident use of cannabis. The US National Surveys on Drug Use & Health (NSDUH) drew large nationally representative probability samples of 12-17 year olds, 2002-11 (n= 148,200), all assessed via computer-assisted self-interviews, with data entered into the RDAS online analysis system. We constructed these RDAS estimates as ratios of newly incident users among those at risk for first onset of cannabis, stratified by age, family origin, and place of birth, with due attention to analysis weights and Taylor series variance estimation. For every 1000 12-17 year olds at risk, an estimated 58 start using cannabis each year (95% CI = 56 to 59). Overall, annual incidence estimates for the US-born (5.9%/ year) exceed estimates for those born abroad (3.7%/year; p<0.05). Risk differences are seen with special clarity among Hispanics, and to a lesser extent, among Native Americans. Notwithstanding limitations, we are prompted to ask about social environments of young adults, including country of origin and length of USA residence, that might explain observed risk variations. Development of ethnically-informed preventive intervention approaches might be needed in programs that seek reduced cannabis smoking prevalence in the multi-ethnic USA population.

### 1:15 PM - 1:30 PM MENTORING- 10 HELPFUL TIPS

### Guillermo Prado

Successfully navigating a career in academia can be a challenging, overwhelming, complex, and even terrifying process. Dr. Guillermo (Willy) Prado will share 10 career advice points which will assist early career scientists in being highly productive and successful scholars.

### 2:30 PM - 4:00 PM

# TRANSLATIONAL INTERSECTION OF DEPRESSION AND ADDICTION

### Miguel Ángel Cano and Nicholas Gilpin

Theoretical models and empirical research suggest that depression and addictive behaviors/disorders are often comorbid, which may lead to syndemic interactions. This multidisciplinary panel will discuss preclinical and clinical research findings related to the (a) mechanism that may link both depression and addictive behavior; (b) challenges in diagnosing comorbid depression and addictive disorders; as well as (c) the development of evidence-based psychosocial interventions that specifically target depression and addictive behavior.

# SOCIAL DEFEAT STRESS INDUCES A DEPRESSION- AND ADDICTION-RELATED PHENOTYPE IN ADOLESCENT C57BL/6 MICE - Sergio D. Iñiguez

Exposure to social stressors during adolescence is highly correlated with the emergence of depression- and addictionrelated illnesses. Thus, to examine this issue at the preclinical level, my laboratory is currently investigating the effects of social defeat stress on responses to emotion-eliciting and drug-seeking behavior, using juvenile male c57bl/6 mice. Specifically, postnatal day (PD)-35 mice were exposed to 10-minute episodes of defeat stress for 10 consecutive days (PD35-44), while control mice were handled daily. Twentyfour hours after stress exposure (PD45), separate groups of mice were tested on the social interaction- and forced swim- tests. To assess the influence of social stress on the rewarding properties of cocaine (0, 5, 10 mg/kg), we also exposed mice to the conditioned place preference paradigm. Overall, defeated mice exhibited a depression-like phenotype as inferred from increased avoidance behavior, as well as increased time spent immobile in the forced swim test, when compared to non-defeated controls. Furthermore, defeated mice displayed enhanced preference for environments paired with moderately low doses of cocaine, when compared to saline-pretreated controls. Together, our findings suggest that the adolescent social defeat paradigm may be used as a model to examine the emergence of distinct but interrelated psychopathologies, such as depression and addiction.

# THE ROLE OF HABENULA AS A BIOMARKER OF TOBACCO ADDICTION AND SUICIDAL IDEATION - Ramiro Salas

The habenula is a small brain region that activates upon negative events (such as disappointment). We hypothesized that habenular activity and connectivity may be a critical component of both withdrawal symptoms in drug abuse, and major depression symptoms. We use functional MRI to study healthy non-smokers and smokers, and major depression patients, with emphasis on habenular connectivity. The habenula is connected to both dopaminergic reward areas and the serotonergic raphe nucleus, providing a possible link for the frequently observed addiction/depression co-morbidity. Our results show that habenular activity and connectivity is linked (in a gene variant-specific way) to the effects of tobacco abuse and to suicidal ideation, a landmark of depression. We propose that the habenula may be a target for possible future pharmacotherapies relevant to both depression and addiction.

# THE CO-OCCURRENCE OF SUBSTANCE USE DISORDERS AND DEPRESSION: IMPLICATIONS FOR TREATMENT - Carlos Blanco

Depression and substance use disorders (SUDs) commonly co-occur, which presents diagnostic challenges in classifying independent major depressive disorder (MDD) vs. substanceinduced depressive disorder (SIDD). It remains unclear if distinct characteristics and/or patterns in temporal course distinguish MDD and SIDD to guide these decisions. Further, evidence suggests that a significant portion of individuals with SIDD are later re-classified as having independent MDD. Continued research to improve our understanding of differences between these two and changes in reclassification over time is necessary for diagnostic clarification and to guide clinical decisions when treating depression in the context of SUDs. In this presentation we will briefly review epidemiological findings regarding the co-occurrence of MDD and SUD and discuss the prevalence and course of SIDD. We will use these findings to discuss potential etiological mechanisms for this cooccurrence as well as prevention and treatment implications.

# EFFECTIVENESS OF TREATMENTS FOR LATINO ADOLESCENTS FOR DEPRESSION AND SUBSTANCE ABUSE: A SYSTEMATIC REVIEW - Guillermo Bernal

The Latino population is expected to reach 128.8 million by 2060 constituting 31% of the total US population. Latinos and Latinas are younger than other ethnic groups and effective treatments are needed for this population. This presentation will examine the available evidence on the efficacy of treatments for depression and substance abuse for Latino adolescents. Literature searches were conducted from August 2013 to October 2014 using selected keywords in different online databases (e.g. Cochrane, EBSCOHost, Dialnet, JStor, OvidSp, ProQuest PubMed, PsychNet, Scielo, and Science Direct). These searchers were queried independently for all years up to 2014. RCT's and open clinical trials were key selection criteria. The results show there are a number of different treatments for depression and for substance abuse that are effective with Latino/a adolescents. The implications of issues of culture, language, cultural adaptation, and the availability and access to evidence-based treatments for the Latinos will be discussed.

4:15 PM-5:15 PM BREAKOUT SESSION A A1 (Fiesta A/B/C)

Neurobiology of Stress-Alcohol Interactions and Cocaine-Conditioned Behaviors

# STRESS-INDUCED NEUROADAPTATIONS OF GLUCOCORTICOID RECEPTOR MACHINERY IN THE PARAVENTRICULAR HYPOTHALAMUS OF RATS

Annie Whitaker, Ph.D., Post-Doctoral Fellow, Department of Physiology, Louisiana State University Health Sciences Center; Gilpin, NW, Department of Physiology, Louisiana State University Health Sciences Center (awhita@lsuhsc.edu)

Post-traumatic stress disorder (PTSD) has a high rate of co-morbidity with alcohol use disorders. Our laboratory has established a rodent model of traumatic stress that mimics the avoidance symptoms of PTSD. Animals are classified as 'Avoiders' or 'Non-Avoiders' based on avoidance of predatorodor paired context. We have previously shown that Avoiders consume more alcohol than Non-Avoiders and unstressed Controls and have an attenuated HPA response to predator odor, similar to what is seen in humans with PTSD. Glucocorticoids are the primary mediator of HPA negative feedback to the brain by binding glucocorticoid receptors (GRs) in paraventricular nucleus (PVN), thereby reducing corticotropin-releasing factor (CRF) release. GR activation requires various accessory proteins that allow for receptor translocation into the nucleus and transcriptional regulation of target genes including FKBP5, a negative regulator of the GR complex. The purpose of this study was to examine GR machinery in the PVN post-stress. Based on human literature, we hypothesize that Avoiders will have decreased FKBP5 and NR3C1 (encodes for GR) mRNA expression in the PVN post-stress. To test this hypothesis, male Wistar rats (300g) underwent a place conditioning procedure to assess avoidance of an odor-paired chamber. Rats were sacrificed 48h post-stress for quantitative RT-PCR analysis of NR3C1 and genes involved in GR regulation including FKBP5, FKBP4, and Ncor1. In this study, 50% of rats were classified as Avoiders 24h post-stress. There were no differences in gene expression of the GR co-chaperones, Ncor1, FKBP5 and FKBP4 in the PVN of Non-Avoiders and Avoiders. There was a significant increase in CRF mRNA in Non-Avoiders vs Controls (3.6  $\pm$  0.9 vs 1.0  $\pm$  0.67 fold change from Controls). There were no differences in NR3C1 gene expression in the PVN of Non-Avoiders when compared to Controls; however, Avoiders showed a trend (p=0.08) towards a decrease in NR3C1 gene expression in the PVN compared to Non-Avoiders (1.05  $\pm$  0.14 vs. 0.58  $\pm$  0.06 fold change from Controls). These findings suggest that Avoiders have stress-induced neuroadaptations in the GR complex in the PVN that may contribute to the post-stress escalation of alcohol intake. Current studies are aimed at examining these components in brain regions important for regulating HPA negative feedback and behavioral effects of stress.

# TAURINE EFFECTIVELY INHIBITS COCAINE PREFERENCE IN MALE AND FEMALE RATS: CANDIDATE FOR SUD TREATMENT

Kaliris Salas-Ramirez, Ph.D., Assistant Medical Professor, The Sophie Davis School of Biomedical Education -CUNY Medical School; Kevin Uribe2, Miledys Guzman1, Melissa Evelyn<sup>1</sup>, Silvia Perez<sup>3</sup>, Dainn Woo<sup>1</sup>, Matthew Chrisphonte<sup>1</sup>, Kirtan Chauhan<sup>1</sup>, Ugo Akpara<sup>1</sup>, Hesham Saleh<sup>1</sup>, Shailesh Banerjee<sup>1</sup>, Eitan Friedman<sup>1</sup>, Dept of Phys, Pharm and Neuro, CCNY Dept of Biol, CCNY Dept of Biol, Lehman College, CUNY (ksalasram@med.cuny.edu) Cocaine is a commonly abused psychostimulant that causes alterations to the mesocorticolimbic circuitry and addictionrelated behaviors. Females have been shown to be more vulnerable to the cocaine addiction compared to males, requiring a lower dose and shorter time period before the onset of addiction and experiencing more difficulties in rehabilitation. Taurine is an essential amino acid that displays several neuropsychopharmacological roles such as neuromodulator, The objective neurotrophic, and osmomodulatory roles. of the present study is to determine if two weeks of taurine pretreatment will reduce cocaine preference in male and female subjects and elucidate the role of dimorphic gonadal

hormones in taurine's efficacy. The experiment consists of four cohorts (n = 36): Intact-male, intact-female, GDX-male, and OVX-female. All cohorts were done at different times to avoid pheromonal cues. The cohorts are divided into four groups. The first group are injected with taurine pretreatment and taurine+cocaine coadministration treatment (pre-tau/coc+tau), the second group is exposed to taurine pretreatment and cocaine+saline coadministration treatment (pre-tau/coc+sal), the third group also received the taurine pretreatment and taurine+saline coadministration treatment (pre-tau/tau+sal), and the fourth group is saline-pretreatment and cocaine+saline coadministration treatment (pre-sal/coc+sal). The rats are pretreated with taurine (100mg/kg) or saline (intraperitoneal) for two weeks before undergoing a ten-day conditioned place preference (CPP) behavioral paradigm where a context will be paired with a drug stimulus (taurine or cocaine). Results suggest intact males (p<0.036) and intact females (p<0.05) form a preference to cocaine but pre-treatment of taurine attenuates cocaine preference to non-significant levels. Interestingly, taurine pre-treatment and co-treatment potentiates cocaine preference in intact females (p<0.01). GDX males show similar behavioral results as intact males. Although OVX-females do not form a cocaine-preference, OVX-females do form a preference to the taurine-paired chamber (p<0.0064). These results suggest taurine is an effective treatment for substance abuse but further research will need to elucidate how hormones modulates taurine's efficacy. Addictioninduced behaviors often persist for years after abstinence and the best form of treatment is yet to be determined.

# THE ENHANCEMENT OF CUE-INDUCED MOTIVATION IN OBESITY-PRONE VS. RESISTANT RATS IS ACCOMPANIED BY SENSITIZATION TO COCAINE AND INCREASED CP-AMPA RECEPTOR EXPRESSION IN THE NAC

Carrie Ferrario, PhD, Assistant Professor, Department of Pharmacology, University of Michigan; Oginsky MF1, Nobile CW<sup>1</sup>, Goforth PB<sup>1</sup>, Robinson MJF<sup>2,3</sup>, Berridge KC<sup>2,1</sup>Department of Pharmacology, University of Michigan, <sup>2</sup>Department of Psychology, University of Michigan, <sup>3</sup>Department of Psychology, Wesleyan University (Ferrario@umich.edu) While the decision to eat is shaped strongly by hunger, satiety, and energy demand, it is also greatly influenced by environmental cues associated with food (food-cues). For example, in humans exposure to food-cues, like a blinking donuts sign, can increase ratings of desire to eat, and the amount of food consumed. Similarly, in rodents food-cues can elicit approach, reinforce operant responding, and increase food consumption. Obesity-prone people are more susceptible to these motivational effects of food-cues, and food-cues activate the striatum more strongly in obese vs. non-obese people. This differential activation may be driven in part by alterations in AMPA receptor (AMPAR) expression as AMPARs provide the main source of excitation to the striatum, play a role in behavioral responses to food-cues, and are increased after exposure to sugar. We first determined whether rats that are susceptible to diet-induced obesity show enhanced attraction to and motivation for food-cues compared to non-obese rodents fed the same diet. We next determined whether mesolimbic function differs in obesity-prone vs. resistant rats prior to and/or after exposure to the junk-food diet. In addition, alterations in striatal AMPAR expression and function were also evaluated. We found pre-existing and dietinduced increases in cue-triggered motivation in susceptible versus resistant rats. In addition, obesity-prone rats showed a sensitized locomotor response to cocaine compared to obesity-resistant rats, consistent with enhanced reactivity of mesolimbic systems. In outbred obese rats, cross sensitization to cocaine was seen after "junk-food" diet was removed and rats were given ad lib access to standard lab chow only for 2 weeks, whereas sensitization was evident in selectively bred obesity prone vs. resistant rats without any diet manipulation. In addition, prolonged exposure to a "junk-food" diet followed

by a return to standard lab chow for two weeks was associated with a selective increase in surface GluA1 protein expression only in obese rats. This selective increase in GluA1 in obese rats in the absence of changes in GluA2 may be indicative of calcium-permeable AMPARs (CP-AMPAR), which play a role cue-induced drug craving. Initial examination of CP-AMPAR mediated transmission via whole-cell patch clamp recordings support the presence of CP-AMPARs after junk-food diet exposure in susceptible rats. These data will be discussed in light of the potential contribution of enhanced glutamatergic transmission and sensitization of incentive-motivation to obesity and the intersection of drug addiction and obesity.

A2 (Crockett East)

MARIJUANA

## ABUSE-RELATED EFFECTS OF CANNABIS: DOES SEX MATTER?

Ziva D. Cooper, Ph.D., Assistant Professor, Department of Clinical Neurobiology, College of Physicians and Surgeons of Columbia University (zivacooper@gmail.com) Preclinical studies demonstrate that male and female rodents differ in their behavioral responses to cannabinoids, suggesting that females may be particularly vulnerable to the negative effects of these types of drugs. Despite these strong preclinical findings, differences in cannabis' direct effects between men and women is not yet known. This presentation will discuss findings from our human laboratory investigating how men and women differ in their response to smoked cannabis, and specifically on abuse-related effects.

# MODIFYING THE MARIJUANA DECISIONAL BALANCE SCALE TO INCLUDE SOCIAL AND MEDICAL REASONS FOR AND AGAINST USING MARIJUANA

Tara Perkins, Doctoral Student, The University of Texas at El Paso, Psychology Department; Coffman, C., The University of Texas at El Paso & Llanes, K., The University of Texas at El Paso (tgperkins@miners.utep.edu)

The emerging national conversations regarding the legalization of marijuana may encourage individuals to reevaluate their current drug use status. Ten percent of high school students who were non-users of marijuana reported they intended to try or use marijuana if it were made legal in their state. And individuals who were already users reported an interest to increase their use if they could access marijuana legally (Palamar, et al., 2014). The lifetime prevalence rate of marijuana has increased from 2011 (46.6%) to 2012 (49.1%), representing a 2.5 percent change in lifetime prevalence rates (Johnson et al., 2012). The Marijuana Decisional Balance Scale (MDB) is a scale designed to evaluate reasons for and against marijuana use (Elliot et al., 2011). The Marijuana Decisional Balance Scale does not address specific influences within the pros and cons constructs. In addition, the amount of con items outnumbers the amount of pro items, which could bias a respondent into endorsing more of the cons items. The present study proposes a modified version of this scale, created to address these issues. The purpose of this study is to: 1) examine how scores on a Modified Marijuana Decisional Balance scale (MMDB) correlate with self-reported marijuana use, 2) to test reliability of the MMDB among users and non-users of marijuana, and 3) to test the validity of the MMDB among users and nonusers. Based on these three aims, we hypothesize that our modified scale will assess two different reasons why people use marijuana: Social distress and Medical distress. Each of these two scales is comprised of an even numbers of pro and con reasons for marijuana use. In total, four factors of marijuana use will be evaluated: social pros, social cons, medical pros, and medical cons of marijuana use. To validate the MMDB, we will analyze its relationship with a previously validated measure, The Marijuana Effect Expectancy Questionnaire (MEEQ) is a scale developed to assess marijuana expectancies (MEEQ; Schaefer & Brown, 1991). We also hypothesize that the pro items of using marijuana will

predict more marijuana use. The con items of using marijuana will be more predictive of less marijuana use. Understanding what influences an individual to abstain, initiate, and continue drug use is a goal of drug abuse researchers. The present study aims to further the current body of knowledge and contribute the science behind drug abuse research.

# DIFFERENTIAL EXPRESSION AND ACTIVITY PROFILES OF HISTONE DEACETYLASES AMONG ALCOHOL AND MARIJUANA ABUSERS

Marisela Agudelo, Ph.D., Assistant Professor, Herbert Wertheim College of Medicine, Florida International University; G., Figueroa, K. Muñoz, and M.P. Nair, Herbert Wertheim College of Medicine, Florida International University (magudelo@fiu.edu) Drug and alcohol addiction are regulated by multiple mechanisms. For instance, it is known that histone deacetylases (HDACs) play a role in drug dependence through their ability to regulate other genes. Previous reports from our lab have demonstrated that alcohol induces HDAC2 and reactive oxygen species (ROS) in human neuronal cells; however, there is a lack of research studies elucidating the effects of alcohol and marijuana abuse on HDACs and their immune-modulatory effects on human monocyte-derived dendritic cells (MDDCs). The aim of the current study is to further investigate the epigenetic mechanisms involved in dendritic cell modulation in the context of alcohol and marijuana abuse. Therefore, we performed a personalized approach using qRT-PCR and western blot to analyze the gene and protein expression of class I histone deacetylases (HDAC1, HDAC2, HDAC3, and HDAC 8) by MDDCs from three study groups: healthy controls, alcohol abusers, and marijuana abusers. In addition, to test the functionality of these histone deacetylases, the HDAC activity was also measured in MDDC whole cell lysates from alcohol and marijuana abusers. Our results show that class I HDACs were differentially regulated across the groups with higher levels of gene and protein expression shown in the alcohol abusing group. However, the enzyme activity levels did not correlated with the expression profiles. Leading us to conclude that HDAC enzymatic activity is not related to HDAC expression levels and may be regulated by other mechanisms. While the effects of HDACs in the context of alcohol and marijuana addiction are poorly understood, our results suggest substance abuse modulates genes that support development of addiction-related behaviors. For the first time, our findings contribute to a better understanding of the genetic HDAC profiles during alcohol and marijuana addiction in dendritic cells derived from substance abuse patients, which may lead to the development of new approaches for addiction treatment.

5:30 PM – 6:30 PM BREAKOUT SESSION B B1 (Fiesta A/B/C)

HIV/AIDS Issues: Evaluating Risk Factors and Health Outcomes among Underserved Populations

# LIMITED HIV KNOWLEDGE AMONG HISPANIC ADOLESCENTS RAISES HEALTH CONCERNS

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Florida suffers from one of the most devastating HIV epidemic in the United States, where Hispanic's seroprevalence is nearly twice the national rates, while currently ranking 2nd in the number of adolescents (13-19 years) living with HIV/AIDS. Although prevention programs have successfully declined HIV infection rates among youths, the rate of decline among Hispanics/Latinos has been far slower. While studies suggest that Hispanics social and economic status may limit adolescent access to information, Hispanic adolescent-specific data are limited, which present a serious impediment to measure and monitor progress. Analyses included 395 Hispanic Adolescents between the ages of 11-18 years living in South Florida that have enrolled

in the ROBIM study to date. Baseline visit consists of a brief medical exam, blood and urine samples to assess health, and structured survey questionnaires including the HIV Knowledge Questionnaire (HIV-KQ-18). Less than 10% inschool adolescents had comprehensive HIV/AIDS knowledge, with 25% unable to answer correctly any HIV factual question. The level of HIV knowledge was correlated with age (r= 0.387 p= 0.000), and total scores tended to be better among females  $(7.5 \pm 4.1 \text{ vs.}, 6.5 \pm 4.3, p= 0.09)$ . School is the most frequent source of information (28%), followed by the parents (26%), and peers (17%). The best scores were attained by those whose primary source was the health care providers (7.9 ± 4.6). Youths receiving information from their parents tested in the middle, yet they had significantly better scores than those that received only school based education (6.1 ± 4.5 vs. 7.4 ± 4.15 scores, p= 0.037). Hispanic adolescents are not equipped with the proper information they need to prevent STIs, HIV, and undesirable pregnancies. The youngest scored very poorly, yet broad information is critically needed before risky behaviors are formed and become entrenched. Since scores were the lowest on those receiving only school-based education, and the highest on those receiving information from a health care provider, we believe resources need to be re-directed towards developing a culturally and age appropriate health education curriculum that better prepares school teachers for the challenge of providing comprehensive sex education while it also incorporates health professionals as part of the educational team.

# THE ASSOCIATION OF SMOKING STATUS AND RACE WITH PHYSICAL FUNCTION IN HIV INFECTED AND UNINFECTED PATIENTS IN THE VETERANS AGING COHORT STUDY

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Previous studies have found that cigarette smoking is associated with poor physical function (PF) and that the rate of physical limitation varies by race and age. Smoking is highly prevalent among adults with HIV-infection (HIV+). Among HIV+ current smokers, 43% were African-American, 36% White and 16% Hispanic/Latino. This study examined the effects of smoking status and race on change in self-reported PF overtime in a cohort of HIV+ and uninfected patients. We performed a longitudinal analysis of 3627 HIV+ and 3692 uninfected patients matched by age/race/gender enrolled in the Veterans Aging Cohort Study between 2002 and 2011. Most of the participants were male (94%). Data were collected using annual surveys and electronic medical records. We measured self-reported PF using the SF-12 physical composite score (PCS); high scores mean better PF. We used linear mixed models to determine the change in PCS over a five-year follow-up period. Among African-American participants 51% were HIV+ and 49% uninfected, 47% vs. 53% in Hispanic/Latino and 46% vs. 54% in White respectively. There were significant racial differences (p<0.001) in smoking behavior by HIV-groups at baseline. HIV+ participants were more likely to be current smokers than uninfected participants, with the highest prevalence reported in the African-American (70%) compared to White (20%) and Hispanic (9%) participants. Older age and being a current or former smoker was associated with a decline in PCS among all races, after controlling for demographic characteristics, education, BMI and depression. Regardless of HIV status, change in PCS over time was not significantly different by race. Among HIV+, Hispanic current smokers had lower PCS compared to African-American current smokers at baseline (p< 0.01) and five years of follow-up (p<0.01). There was no significant difference in comparisons of Hispanic versus African-American uninfected current smokers. Despite better outcomes for African-American participants, our findings suggest the need for optimizing tobacco cessation programs to prevent PF limitations among HIV+ and uninfected patients of all races.

COGNITIVE IMPAIRMENT ASSOCIATED WITH GENETIC VARIATIONS IN HIV-INFECTED ADULTS PARTICIPATING IN A RISK-REDUCTION INTERVENTION - Karina Villalba, Research Associate, Florida International University, Robert Stempel College of Public Health and Social Work; Devieux G. Jessy, Florida International University (kvill012@fiu.edu) Within days of infection, the HIV virus enters the central nervous system (CNS) leading to neurological, cognitive and behavioral complications. Even in the era of combination antiretroviral therapy (cART), mild neurocognitive impairment persists in approximately 45% of HIV-infected individuals particularly affecting the domains of executive function, learning and memory. Genetic association studies have increasingly shown individual differences in cognitive function (i.e., executive control) which may be determined by heritable genetic factors in the serotonin and dopamine systems. We investigated whether SNPs rs6277 in dopamine receptor D2 (DRD2), and rs4570625 in tryptophan hydroxylase isoform 2 (TPH2) genes were associated with executive dysfunction in HIV-infected adults. Neurocognitive measures used to assess executive function, and cognitive flexibility were: Short Category Test and the Color Trails Test. Data were analyzed using logistic regression methods. Total of 267 participants were included, 65% male, predominantly minority (76% African American, 16% Hispanic and 8% European American), with the majority (69%) with at least a high school diploma and a mean age of 45.1 years. Significant results were found in SNPs rs4570625 associated with impaired executive function (OR = 2.4; 95% CI = 1.18 to 5.08; p = 0.02) greater in males (OR = 3.7; 95% CI = 1.42 to 9.81; p = 0.01); and rs6277 associated with impaired cognitive flexibility (OR = 1.5; 95% CI = 1.05 to 2.23; p = 0.04), greater in males (OR = 1.8; 95% CI = 1.25 to 2.92 p = 0.01). SNPs rs4570625 and rs6277 were significantly associated with impaired executive function and cognitive flexibility, critical to planning, organizing and ability to adapt goal-directed behavior and thus possibly important for effective behavioral risk reduction. The strongest associations were male-specific. The genetic factors may potentially modify the ability of HIVinfected individuals to respond to cognitive-behavioral riskreduction interventions, suggesting opportunities for optimizing outcomes by tailoring interventions using genetic variations.

## B2 (Crockett) TOBACCO/NICOTINE

TOBACCO USE AMONG SEXUAL MINORITIES IN TEXAS Irene Tamí-Maury, D.M.D., MSc, DrPH Division of Cancer Prevention, The University of Texas MD Anderson Cancer Center; ¹Lin, MT; ¹Hong, J; ²Lapham, H; ³Cage, C; ¹Shete, S; ¹Gritz, ER; ¹MD Anderson Cancer Center; ²The University of Texas; ³The University of Florida (itami@mdanderson.org) Approximately 4% of adults in the United States self-identify as Lesbian, Gay, Bisexual, Transgender, or Intersex individuals (LGBTI), corresponding to about 9 million adults. There is reason to believe that cancer risk in this group is higher than the general population. However, few studies have examined the link between sexual orientation and tobacco use, the most important avoidable risk factor for cancer. Particularly in Texas, no data on tobacco use among the LGBTI community he have been published. To address this gap, we conducted

a community tobacco survey during the 2014 Houston Pride Parade and Festival. A cross-sectional survey (20 items) examined tobacco use, sexual orientation and other sociodemographic factors. Four trained surveyors used a paperand-pen instrument, and results from 99 completed surveys from self-identified LGBTI individuals were analyzed. The mean age of participants was 30 years (SD=11.0). The majority self-identified as lesbian (40%) and gay (39%). In terms of race/ethnicity, 42% were whites and 34% Latinos/Hispanics. Tobacco use (every day or some days) among respondents was high (61%). However, tobacco use and/or second hand smoke exposure were not among the top three health issues cited as priority by the LGBTI community. Most of the participants either agreed or strongly agreed with accepting sponsorship money from the tobacco industry for LGBTI organizations/events/ establishments. Also, there was no strong perception of high tobacco use prevalence among LGBTI individuals. Prevalence of everyday or some days use of nicotine delivery systems (e.g., E-cigarettes) was 30%. These preliminary findings confirm the high prevalence of tobacco use among LGBTI individuals. While these high rates are cause for concern, this effort provides important information that will be used for targeting interventions to prevent and reduce tobacco use in this vulnerable population in the state of Texas.

# GROUP WATERPIPE TOBACCO SMOKING INCREASES USER TOXICANT EXPOSURE

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Smoking tobacco in a waterpipe (hookah, shisha) has become a global public health concern. It involves heating flavored tobacco with charcoal and passing the subsequent smoke through water prior to inhalation. Research reveals that waterpipe tobacco smoke contains a variety of toxicants to which users are exposed, though the focus has been on individuals while group use is common. This study examined toxicant yield and exposure associated with individual and group waterpipe tobacco smoking. Twenty-four pairs of waterpipe smokers participated, smoking as a dyad and as singletons. A 12-hour smoking abstinence preceded the 45min ad lib waterpipe tobacco smoking session (10g/tobacco). Before and after smoking, blood was drawn, expired CO levels were measured, and subjective effects were assessed; puff topography was measured throughout. One randomly selected participant was selected as the singleton for comparison to that same participant when smoking as a dyad member. Puff topography data were played back (Shihadeh & Eissenberg, 2011) to generate smoke for toxicant analysis. Mean plasma nicotine concentration was not significantly different between dyad (12.97 ±2.33 ng/ml) and singleton (9.79±1.57 ng/ml) conditions but mean expired air CO was significantly lower  $(dyad = 12.95\pm1.77 \text{ ppm}; singleton = 17.58\pm2.63 \text{ ppm}). Dyad$ smoking was associated with more puffs (114.74±34.91; 80.35±37.58) taken from the waterpipe and a shorter interpuff interval (IPI; 20.45±7.70; 33.80±18.26. Smoke toxicant analysis revealed higher concentration of total particulate matter (TPM), carbon monoxide, tar, nicotine, among other toxicants in the smoke produced under dyad conditions. These results are the first to compare the toxicant exposure in dyad versus individual waterpipe tobacco smoking. They suggest that dyad smoke increases toxicant levels, however less toxicant exposure reaches the user. These results likely are due to shorter IPIs and more puffs taken from the waterpipe increase tobacco temperature (see Shihadeh, 2003) and thus increases smoke toxicant content, but, when smoking in a dyad, less smoke is inhaled by each individual user.

### PARTNERING WITH COMMUNITY HEALTH WORKERS AND KEY OPINION LEADERS TO ADDRESS TOBACCO PRODUCT REGULATION IN LATINO AND OTHER **ETHNICALLY DIVERSE COMMUNITIES**

Robert García, MPH, University of Southern California; Lourdes Baezconde-Garbanati, PhD, MPH, Claradina Soto, PhD, MPH, Jimi Huh, PhD, Ricky Bluthenthal, PhD, Tess Cruz, PhD, Steve Sussman, PhD, Jennifer Unger, PhD, Kacie Blackman, PhD, Rosa Barahona, Yaneth Rodriguez, Karina Dominguez (garc617@usc.edu)

In 2012 tobacco companies spent 9.6 billion on marketing, up from 8.4 billion in 2010. This rise in tobacco marketing could lead to increased tobacco product initiation, resulting in more nicotine addiction. Tobacco marketing is cleverly segmented and targeted in ethnically diverse communities such as Latinos. Tobacco control and regulatory messages however; are not always conveyed in culturally specific ways or in the most linguistically appropriate manner. In order to address this gap it is necessary to engage the communities of interest at different levels. There are several studies which utilize Community Health Workers (CHW) or Key Opinion Leaders (KOL) but few, if any utilize both. CHW's and KOL's are a key in addressing the effects of the tobacco retail environment as they are aware of their community's needs, vulnerabilities and most importantly strengths. This presentation will discuss two sub-studies of a project conducted in Los Angeles that use both CHW's and KOL's to inform regulatory practices. The first sub-study will present data from 8 focus groups conducted with Key Opinion Leaders (N=70) to explore the role KOL's could play as potential allies for the FDA in delivering tobacco regulatory messages to retailers. A key finding was that retailer campaign materials, created by a regulatory agency, were not well received especially by the Hispanic KOL's for their lack of cultural appropriateness and inadequate translation. Further qualitative results from the focus groups will be presented. The results of these focus groups inform the second substudy which utilizes CHW as partners in data collection and project outreach. We will present data and lessons learned from working with CHW's. This sub-study is being conducted in tobacco retail outlets (N=600). The data collection methods include store employee interviews and observations. We will show how the use of both KOL's and CHW's is a method to fully engage communities in research and regulatory efforts. In communities such as Latino enclaves it is important to learn a wide breadth of knowledge that KOL's can provide while also learning from the intimate and valuable knowledge that CHW's possess. This knowledge in turn informs researchers and regulators on how to address the rising presence of tobacco marketing in order to reduce future use, initiation and cessation relapse. CHW's and KOLs have the potential to aid in regulatory efforts, and will be key for their success in ethnically diverse populations.

Friday 26 June 2015

8:15 AM - 9:45 AM

CONSEQUENCES OF STRESS AND INTERVENTIONS TO ADDRESS DRUG USE IN ADOLESCENCE

### Karina Gattamorta

Adolescence is a critical developmental period. This panel will highlight consequences of physical and emotional stress using animal models, discuss interventions designed to reduce substance use among Hispanic adolescents and improve refusal skills among adolescent girls, and discuss social vulnerabilities and HIV risk among young Hispanic gay and bisexual men. First, Dr. Carlos Bolanos-Guzman will present on the life-long neurobiological consequences of stress in adolescent male mice. His presentation will discuss long-lasting increases in anxiety-like and depression-like behaviors and increased nicotine consumptions that result from experiencing physical or emotional stress. Dr. Daniel Santisteban will present results of a randomized trial testing an adaptive family treatment for adolescent drug users. His presentation

will focus on baseline profiles in terms of acculturation and immigration-related factors, the efficacy of the two conditions in engaging participants and impacting drug use, and the role of co-occurring depression in drug use severity and treatment outcomes. Dr. Anne Norris will discuss using virtual and mixed reality simulations involving avatars to build refusal skills, an essential component of effective interventions for adolescent substance use, among girls. These interventions can be used as an alternative to role play to help build refusal skills as they create immersive, real time practice sessions that can boost potency or reinforce skill building intervention effects in the post-intervention period. Finally, Dr. Jose Bauermeister will discuss social vulnerabilities and the HIV/AIDS risk affecting young Hispanic gay and bisexual men. This study examines economic disadvantage, weak social networks and social support, homophobia, HIV/AIDS stigma, and poor quality or insufficient education as social vulnerabilities that increase Hispanic YMSM's risk for HIV/AIDS.

### LIFE-LONG NEUROBIOLOGICAL CONSEQUENCES OF PHYSICAL VERSUS EMOTIONAL STRESS

IN ADOLESCENT MALE MICE - Carlos A. Bolaños-Guzmán There is a strong link between early-life trauma and lifelong health. Individuals with history of early-life abuse, whether physical, emotional, or sexual, are less likely to regulate daily stress effectively, more likely to self-medicate, and increased mortality and morbidity from various common diseases. Most current animal models are unable to tease apart the potentially distinct effects of emotional versus physical stress, and focus mainly on stress effects in pre-weanling or adult animals and often overlook adolescence, a critical developmental period. The experiments to be discussed were designed to examine life-long effects of physical (PS) and emotional (ES) stress using a novel model of stress during adolescence. In this study, adolescent male C57BL/6J mice were divided into three groups: those experiencing social defeat, those forced to witness the social defeat, and no stress controls. Briefly, the home cage of a male CD-1 retired breeder mouse was separated by a Plexiglas divider into two adjacent compartments. An adolescent male C57BL/6J mouse was introduced into the compartment territorialized by the CD-1 where it was repeatedly overpowered, while a second adolescent male C57BL/6J mouse witnessed this interaction from the adjacent compartment. Results demonstrate that PS or ES exposure during adolescence induces long-lasting deficits in a battery of behavioral assays designed to assess changes in mood. Specifically, exposure to PS or ES increased anxiety- and depression-like behaviors as measured by the elevated plus maze (EPM) and forced swim test (FST), and displayed avoidance in the social interaction test (SIT). These mice also consumed significantly more nicotine (NIC) than controls. A month of nicotine consumption induced a buffering effect against stress-induced deficits in the FST and EPM, but not the SIT (i.e., mice spent more time in the open arms of the EPM and less time immobile in the FST), suggesting anxiolytic and antidepressant-like effects. These data indicate that stress, whether PS or ES, increases sensitivity to NIC, and that NIC exposure is sufficient to buffer against some, but not all stress-induced deficits. This may shed light on why people with mood disorders have higher incidence of smoking, as NIC could provide some relief to these individuals and therefore may represent a form of self-medication. Future investigations into the mechanisms involved may provide further insight into the etiology of mood disorders.

### RESULTS OF A RANDOMIZED TRIAL TESTING A NEW ADAPTIVE FAMILY TREATMENT FOR ADOLESCENT **DRUG USE - Maite Mena**

Drug use rates are highest among Hispanic middle school youth and drug use at this stage of development can bring severe family conflicts and disruptions in normal adolescent development. An adaptive family intervention was developed as

part of a treatment development effort to help Hispanic families who often differ from mainstream populations in culture-related values and experiences that must be addressed in treatment A Stage II randomized clinical trial was conducted to investigate the efficacy of this new adaptive family therapy treatment against a condition that included both family therapy and group intervention. By testing CIFFTA against two ecologically valid interventions, the study was meant to be a rigorous test of the new treatment. One hundred and ninety Hispanic adolescents and their parents were randomly assigned to one of the two conditions, both of which were designed to deliver 32 sessions. In this presentation we will report on: 1) the baseline profiles of the sample in terms of acculturation and immigration-related factors that may be relevant to treatment, 2) the efficacy of the two conditions in engaging participants and in impacting drug use, and 3) the possible role of co-occurring depression in drug use severity and treatment outcome.

# USING VIRTUAL AND MIXED REALITY SIMULATIONS INVOLVING AVATARS TO BUILD REFUSAL SKILLS: A ROLE PLAY ALTERNATIVE - Anne E. Norris

Refusal skills have been identified as an essential component of effective interventions for adolescent substance use and other risky behaviors. Virtual Reality (VR) and Mixed Reality (MR) simulations involving avatars can be used as an alternative to traditional role play to help build these refusal skills. These simulations create immersive, real time, practice sessions which can boost potency or reinforce skill building intervention effects in the post-intervention period. The purpose of this paper is to: introduce VR/MR simulation involving avatars, using an example of refusal skill building from the Mighty Girls pregnancy prevention program. Explanation of VR/MR, and a review of game design, developmental psychology and prevention science theories and concepts. Presentation of formative and feasibility testing research activities used to create and assess the potential of a primarily VR simulation game involving avatars (DRAMA-RAMA) as the skill building component for the Mighty Girls pregnancy prevention intervention created for early adolescent girls. Operationalization of essential aspects was guided by an interdisciplinary team (computer science, communication science, theatre, nursing), and a theoretical framework that integrates key concepts and theories in developmental psychology, prevention science, and game design. The net result was the development of a primarily VR simulation component delivered in a game format using digital puppetry controlled by inter-actors. Specific research activities included: interactive focus groups (n = 15); field work; low and high tech testing with early adolescents (n = 6); high tech testing with adult stakeholders (n = 6); and a randomized control, feasibility trial (n = 46) conducted in a high risk population in an afterschool setting. Results support appeal (DRAMA-RAMA more likely to be played than Wii Dancing with the Stars under free choice conditions, 61% vs. 24%; p< .01), delivery fidelity (100%), and potential effectiveness (e.g., Game by Time effect for peer resistance self-efficacy, p < .05). Findings illustrate how to develop and use VR/MR in skill building interventions. Flexibility, creative problem solving, and a team committed to transdisciplinary science may be essential to both the development of these simulations.

# SOCIAL VULNERABILITIES AND THE HIV/AIDS RISK AFFECTING YOUNG LATINO GAY AND BISEXUAL MEN IN DETROIT METRO - Jose Bauermesiter

Young men who have sex with men (YMSM) have the greatest risk of acquiring new infections, with the rate of new diagnoses continues to rise in this population. Structural and community risk factors have been linked to disparities in HIV/AIDS outcomes among racial/ethnic and sexual minority populations. The increasing evidence regarding health disparities among sexual minorities has underscored the importance of addressing HIV/AIDS risk from an ecological framework. As part of an academic-community partnership,

United for HIV Integration and Policy (UHIP), we conducted 50 stakeholder face-to-face interviews to understand the social vulnerabilities that increase Latino YMSM's HIV/AIDS risks. In this presentation, we employ a thematic analysis to describe and discuss stakeholders' views on how five structural issues (economic disadvantage, weak social networks and social support, homophobia, HIV/AIDS stigma, and poor quality or insufficient education) have had a significant impact on Latino YMSM's HIV/AIDS risks in the DMA. We juxtapose these narratives with stakeholders' recommendations for structural-level HIV/AIDS interventions, and discuss potential strategies to optimize HIV/AIDS prevention and care services for Latino young gay and bisexual men.

### 1:00 PM - 2:30 PM ADDRESSING MULTIPLE HEALTH RISK BEHAVIORS AMONG LATINOS

### Yessenia Castro

Health risk factors tend to cluster, and often function synergistically to influence health outcomes. Latinos are more likely to display certain health risk behaviors (e.g., obesity, problematic drinking, low physical activity) but are also at greater risk for concurrently displaying multiple health risk behaviors (e.g., smoking, obesity, and problematic drinking). Research that identifies determinants of and interventions for multiple health risk behaviors among Latino populations stands to make a significant positive impact on the burden of chronic diseases associated with these health behaviors. As such, this plenary session will disseminate recent research on multiple health risk behaviors relevant to Latino populations. Dr. Cubbin will present epidemiological data examining how multiple health risk behaviors cluster among adult Latinas in California as a function of nativity and socio-economic factors. Dr. O'Dell will utilize animal models of adolescent tobacco use to demonstrate how exposure to nicotine during this developmental period has adverse effects on reward processing and food intake, as well as tobacco use in adulthood. Dr. Prado will discuss how a family-based intervention targeting substance use also impacts risky sexual behavior, internalizing behavior, and physical activity among Latino youth. Dr. Wetter will discuss the synergistic relationship between alcohol and smoking, and demonstrate how this synergistic relationship can be impacted via treatment among adult smokers in Puerto Rico.

# SOCIAL INEQUALITIES IN MULTIPLE CHRONIC DISEASE RISK FACTORS AMONG A POPULATION BASED SAMPLE OF LATINAS IN CALIFORNIA- Catherine Cubbin

Limited research has examined how chronic disease risk is shaped by important social factors among Latinas, namely nativity, socioeconomic status (SES) and neighborhood factors. Data from the Geographic Research on Wellbeing (GROW) study were used to examine associations between SES, neighborhood-level Hispanic/Latino concentration, and neighborhood-level poverty and having two or more risk factors for chronic disease (N=1,248 Latina mothers in California). Analyses were stratified by nativity and were adjusted for age and marital status. In adjusted logistic regression models, we found that, among immigrants, low SES was associated with greater odds of multiple risk factors (1.68, p<0.01) while neighborhood-level factors were not significant. In contrast, among US-born women, low neighborhood-level Hispanic concentration was associated with lower odds of multiple risk factors (0.42, p<0.05), high neighborhood-level poverty was associated with higher odds (2.84, p<0.001), while SES was not significant. Results suggest interactive effects between nativity and social factors to produce risk for chronic disease among Latinas.

### ANIMAL MODELS OF ADOLESCENT TOBACCO USE: IMPLICATIONS FOR THE PREVENTION,

### TREATMENT, AND LONG-TERM CONSEQUENCES OF **ADOLESCENT NICOTINE EXPOSURE - Laura O'Dell**

As individuals age from adolescence into adulthood, the brain undergoes significant changes in structure and function that contribute to age-dependent differences in tobacco use. Research in both humans and laboratory animals has suggested that normal developmental processes are perturbed by exposure to drugs of abuse, such as nicotine in tobacco products. Moreover, exposure to nicotine during adolescence appears to have adverse long-term consequences on behavior (reward processing and food intake) and neurochemical changes that promote greater vulnerability to tobacco use later in adulthood. This presentation will include a series of studies showing the functional and neurochemical consequences of exposure to nicotine during this young and critical period of development. The overall goal of this work is to help identify potential factors that contribute to risk for tobacco addiction and to better understand the underlying neuroadaptations that can be targeted for the rapeutic intervention for young smokers.

### TARGETING COMMON PATHWAYS TO PREVENT DRUG ABUSE AND OTHER BEHAVIORAL AND EMOTIONAL DISORDERS AMONG YOUNG PEOPLE: A NEW ERA FOR PREVENTIVE INTERVENTION SCIENCE - Guillermo Prado

The identification of common pathways associated with multiple health behaviors is critically important to effectively prevent disease and improve the health of young people. By targeting common mechanisms of action in preventive interventions, the effectiveness and cost-effectiveness of preventive interventions across a broad array of outcomes can be maximized. In fact, the 2009 Institute of Medicine Report on Preventing Mental, Emotional, and Behavioral Disorders Among Young People recognized the importance of examining the impact of preventive interventions across a broad array of health outcomes among young people. For example, familybased preventive interventions demonstrating an impact on drug use also have had an impact on other outcomes, including unsafe sexual behavior and internalizing disorders. This presentation will discuss the impact of preventive interventions on multiple outcomes and on the role of common pathways, including culturally specific factors and other contextual factors salient to Hispanics, to multiple outcomes.

#### UNDERSTANDING **INTER-RELATIONSHIPS AMONG BEHAVIORS:** DRINKING AND **SMOKING** LINKED **CESSATION - David Wetter**

Tobacco and alcohol use are linked behaviors that individually and synergistically increase the risk for negative health consequences. Prior research suggests that alcohol use serves to increase the risk of relapse among smokers attempting to quit. Surprisingly, there are few data addressing the natural history of alcohol use over time among smokers attempting to quit. Coaction refers to the likelihood that change in one behavior increases the probability of change in a second behavior. In other words, does a reduction in alcohol use during a smoking quit attempt influence smoking cessation outcomes, or is successful smoking cessation associated with greater reductions in alcohol use? This presentation will examine the natural history of alcohol use over time among several samples of smokers attempting to guit, as well as whether coaction can be purposefully induced via treatment.

### 2:45 PM-4:00 PM GRANT WRITING SESSION

### Craig Field, Laura O'Dell and Guillermo Prado

This year's NHSN Grant Writing Panel will bring together midcareer and senior investigators in behavioral and neuroscience research. Each panelist has been awarded funds through the National Institutes of Health, the National Science Foundation and/or the Patient Centered Outcomes Research Institute through a variety of funding mechanisms and served on NIH

review groups. The one hour session will include discussions from three panelist. Each panelist will provide advice regarding the preparation, submission and resubmission of grant applications from the perspective of grant writers and reviewers. Upon arrival to the session, attendees will be asked to write one question they would like answered by the panel. The last fifteen minutes will be allocated to panel discussion and addressing questions from the audience.

### 4:15 PM - 5:15 PM BREAKOUT SESSION C C1 (Crockett East)

### INTERNATIONAL BREAKOUT SESSION

Avelardo Valdez, Ph.D., Professor, School of Social Work, University of Southern California

This session will have presentations from international investigators focusing on substance use related health issues among Hispanic population outside the U.S. These presentation range from epidemiological studies of emerging drugs in these countries, innovation interventions and public's attitudes toward drug users in these nations. This session will provide a forum for national and international NHSN members to compare U.S. drug use trends, public policies and prevention and treatment modalities. This session will highlight NHSN's commitment towards supporting international substance use and health research.

### FACTORS ASSOCIATED WITH TREATMENT UTILIZATION AND BARRIERS TO TREATMENT IN A NEIGHBORHOOD IN MEXICO CITY

Miguel Angel Melendez Mendoza, Instituto Para la Prevención y Atención de Adiciones; Alice Cepeda, Ph.D., University of Southern California, School of Social Work (mmendozam@

Existing research in Mexico has found high rates of underutilization of treatment services. Low rates of treatment seeking behavior have been attributed to factors such as the lack of recognition of addiction as a disease, social stigma and lack of integration of services. Moreover, Mexico's public health system is not very extensive and geared more for insured workers or those in the public sector, while those patients who receive drug treatment do so in specialized centers. This study will provide a descriptive portrait of the factors associated with treatment utilization and barriers to treatment in one delegación in Mexico City (Venustiano Carranza). The data for the present analyses come from an on-going international research collaboration between the University of Southern California and the Instituto Para la Prevención y Atención de Adiciones. Data for this presentation comes from a needs assessment project that collected existing quantitative treatment indicators from governmental agencies. Moreover, focus groups were conducted with existing service providers (i.e. counselors, social workers, directors, etc.) working in a variety of drug treatment centers in Venustiano Carranza. Representatives included individuals from such outpatient treatment centers such as non-governmental (i.e. Alcoholic Anonymous, Narcotic Anonymous) and governmental or federal including Centros de Intervención Juvenil and Centros Nueva Vida.

Analyses reveal that providers perceive the low levels of drug treatment utilization to be attributed to the lack of knowledge of the existence of drug treatment services in the community. This barrier to treatment was attributed to their own recognition regarding the lack of sufficient or appropriate community outreach and advertisements of services. Moreover, providers agreed that drug users, depending on their level of dependence, have very low rates of help-seeking behavior. Many times, the services are sought out by family members, who because of the limited resources choose Anexos, which are unregulated drug treatment centers that use unorthodox procedures. Findings form this study indicate that distinct barriers exist in this society from those in the United States. Comparatively, there is scarcity of public treatment facilities that is confounded by the economic status of users and their families. Public health officials and policy recommendations need to take establish treatment modalities that take into consideration the unique characteristics and circumstances of this population. Addressing this problem will require attention to larger social structural inequalities including housing, employment, and education that are faced by this population.

# THE USE OF VIRTUAL REALITY FOR THE ASSESSMENT AND INTERVENTION ON CIGARETTE CRAVING

Irene Pericot-Valverde, Doctoral Student, Department of Psychology University of Oviedo; ¹O. García-Rodríguez; ²M. Ferrer-García; ²J. Gutiérrez-Maldonado; ¹R. Secades-Villa. <sup>1</sup>University of Oviedo. <sup>2</sup>University of Barcelona. (ipericotvalverde@gmail.com; pericotirene@uniovi.es) Smoking is a serious public health problem and relapse to smoking after a quit attempt is very common. Cigarette craving has been identified as a key factor in relapse after smoking cessation. Cue exposure treatment (CET) consists of controlled and repeated exposure to smoking-related cues aimed at reducing craving responses. Most studies to date have explored craving responses to smoking cues through virtual reality (VR). Little research has explored the efficacy of VR-CET for craving reduction. Thus, the aim of this study was to examine the effectiveness of a VR-CET for reducing smoking craving. This study was developed in 2 phases. Phase 1: We examined the capability of 7 virtual environments with smoking-related cues for producing craving in smokers. We also explored the relationship between individual variables and craving reactivity to smoking cues. Phase 2: We assessed the effect of systematic cue exposure through VR on craving among treatment-seeking smokers. Moreover, we analyzed individual characteristics related to craving reduction. Phase 1 confirmed that the 7 smoking-related virtual environments produced craving in smokers. Examination of individual variables showed that the sense of presence in the virtual environments was the best predictor of craving increase. Results of phase 2 confirmed that VR-CET effectively reduced cigarette craving in treatment-seeking smokers. We found greater reductions in craving among smokers with certain characteristics, such as younger age, heavy smoking, greater impulsivity and with depressive symptomatology. Virtual environments appear to be a feasible method to induce craving in smokers. This study also showed that VR-CET is an effective intervention to reduce cigarette craving for treatmentseeking smokers. Future studies should assess whether the combination of psychological treatments with VR-CET could improve treatments for smoking cessation.

# ATTITUDES OF URBAN RESIDENTS TOWARD PERSONS WHO ABUSE DRUGS IN LEON NICARAGUA

Teresa Aleman, M.D., Centro de Informacion en Demografia y Salud Cids, Unan Leon. School of Medicine; R. Mann; A. Khenti; Toronto University-Center For Addiction and Mental Health (CAMH); M. Wright ,Inter-American Commission for Drug Abuse Control - CICAD , Organization of American States - OAS; A. Herrera, Universidad Nacional Autónoma de Nicaraqua UNAN-León (tealeman@hotmail.com)

The effects of drug use affect the attitudes of many who interact with persons who abuse drugs. Attitudes are further influenced by individual's knowledge, beliefs, culture, and values. To determine the attitudes of urban residents toward persons who abuse drugs in LEÓN NICARAGUA. To study this, a multicenter cross-sectional study of 121 people, aged 18-65, 50 % for each sex was used. Ten randomly selected urban communities were surveyed with a Multidimensional Questionnaire Attitude Inventory (MAI). The overall scale of attitudes show mostly negative attitude to marijuana and cocaine (62 and 78%) and ambivalent alcohol (54%). Significant differences were found for all drugs in relation to personal consumption, socio-demographic factors and attitudes toward drug user. In conclusion, negative attitudes towards users of illegal drugs (cocaine and marijuana) was found while for alcohol use is

more ambivalent This suggests a high burden of stigma and the need to educate the community.

C2 (Crockett West)

"Low Cost, No Hassle, High Yield": A National Virtual Research Mentoring Group

Victoria Ojeda, Ph.D., Associate Professor, UCSD School of Medicine; Julie Levison, MD, Instructor in Medicine; Massachusetts General Hospital; Sandra P. Arevalo,Ph.D., Post-doctoral Fellow, University of Massachusetts Lowell; Karina Gattamorta, Ph.D., Assistant Professor, University of Miami; Carolina Villamil, MSW, Doctoral Student, Keck School of Medicine, University of Southern California

Discussant: Hortensia Amaro, Ph.D., Associate Vice Provost; Professor of Social Work and of Preventive Medicine, Keck School of Medicine, University of Southern California

We present a model of a virtual research mentoring group on gender, health inequities, substance use and related issues. Investigators at different professional development levels located across the country communicate via a monthly conference call and electronically. Participants have achieved the following objectives: 1) dialogue, 2) mentoring and 3) interdisciplinary collaboration.

Sessionparticipantsmaylearnstrategiestocreateandimplement a similar model within their own institution or research networks. During her almost 30 years of research career, Dr. Hortensia Amaro, a successful and talented researcher, recipient of the 2014 NHSN Mentor of the Year and Beckman Award for Professors who inspire their students to change the World. has mentored hundreds of Latino and non-Latino researchers, including students and junior faculty. In 2014, Dr. Amaro created a mentoring group to enhance participants' access to scholarly feedback and professional development via a regular and timely multidisciplinary forum. She formalized the mentoring and collaborative processes by initiating and supporting a phone-based meeting group that has grown to include eleven post-doctoral fellows and junior faculty from throughout the U.S., most of whom are NHSN members. The members come from disciplines including Medicine, Psychology, Social Work, Public Health, Anthropology, and Sociology. Participants of the "Gender Research Group Mentoring Meeting" convene monthly by phone via conference based on their shared interest in gender, health inequities, substance use and related areas. Topics are proposed in advance of the call and have included: preparing for job talks; applications to post-doctoral or faculty positions; review of grant submissions (i.e., new concepts, resubmissions, responding to reviewers), review of papers to be submitted among other topics. The group also meets in person at the NHSN meeting to continue to solidify relationships and collaborations. Benefits of the group include rapid feedback on work in progress (e.g., manuscripts, grants) as well as growth of professional development skills/ knowledge. The egalitarian structure of the Group means that all can learn and contribute to members' development. The group has enjoyed the chance to explore cross-disciplinary collaborations and growing a network of colleagues outside of one's home institution. Challenges have required strategies to facilitate timely identification of topics and materials for group consideration. The low-cost of teleconferencing ensures that those who do not have other sources of mentoring are able to benefit. We suggest reproducing this model in other research networks within the NHSN and convening a national conversation to examine optimal low-cost and accessible structures for collaboration and mentorship.

1. DIFFERING ROLES OF AUTOPHAGY IN HIV-ASSOCIATED NEUROCOGNITIVE IMPAIRMENT AND ENCEPHALITIS WITH IMPLICATIONS FOR MORPHINE CO-EXPOSURE - S.M.Dever; B.M.Costin; N. EI-Hage. Virginia Commonwealth University School of Medicine; Florida International University Herbert Wertheim College of Medicine (nelhage@fiu.edu)

Autophagy is a key process involved in proper cellular maintenance and its disruption has beenimplicated as a contributing factor in neurodegenerative diseases. We therefore investigated the role of autophagy in HIV-infected subjects with neurocognitive impairment (NCI) ± HIV encephalitis (HIVE), many of which had a history of polysubstance abuse/ dependence, using post-mortem brain tissues to determine whether differences in autophagy related factors may be more associated with NCI or NCI-encephalitis. Using qRT-PCR, we detected significant differences in gene expression levels with SQSTM1, LAMP1 higher in HIV-infected subjects without NCI while ATG5, SQSTM1 were then lower with NCI and ATG7, SQSTM1 were higher in NCI-HIVE. Immunohistochemical labeling of these autophagy associated proteins (also including Beclin 1 and LC3B) in Iba-1-postive microglial cells showed generally higher immunoreactivity in the NCI and NCI-HIVE groups with more focal vs. diffuse patterns of expression in the NCI-HIVE group. Furthermore, analysis of microarray data from these same subjects found significantly higher levels of LAMP1 in NCI-HIVE compared to uninfected subjects in the basal ganglia. Finally, we tested the effect of supernatant from HIV-1-infected microglia and HIV-1 Tat protein in combination with morphine in vitro and found both significant inhibition of autophagic flux and reduced dendrite length for neurons. These results suggest that autophagy genes and their corresponding proteins may be differentially regulated at the transcriptional, translational, and post-translational levels in the brain during various stages of the HIV disease and that infected individuals exposed to morphine may have more severe NCI than those without opioid use.

2. MENTAL HEALTH AND DRUG ABUSE PROFILES OF LATINO INMATES: ETHNICITY, NATIVITY, AND TREATMENT HISTORY - Kathryn M. Nowotny, Doctoral Student, Department of Sociology & Population Program, University of Colorado Boulder; A. Cepeda and A. Valdez, University of Southern California School of Social Work (kathryn.nowotny@colorado.edu)

Latinos are overrepresented in U.S. prisons, yet little is known about the mental health and drug abuse profiles of this group. Using a national sample of 1,828 Latino inmates and logistic regression with prison-level fixed effects, this study finds distinct patterns by ethnicity (e.g., Mexican-origin, Cuban, Puerto Rican, other) and nativity. Compared to Mexicanorigin Latinos, Cubans, Puerto Ricans, and other Latinos are more likely to report a serious mental illness (SMI) including depression, PTSD, anxiety, bipolar, and schizophrenia, and Puerto Ricans are more likely to report using drugs in the year prior to admission. Among drug users, there are no ethnic differences in drug dependency or abuse. Native-born Latinos are more likely to have used drugs and meet the criteria for drug dependency in the year prior to incarceration compared to foreign-born Latinos. Native-born Latinos are also more likely to report being diagnosed with a SMI. There are no differences in treatment utilization among those with a SMI, however, Puerto Ricans and other Latinos with drug dependency are more likely to utilize treatment than Mexican-origin Latinos. This study is among the first to explicitly examine the mental health and drug abuse profiles of incarcerated Latinos and suggests several implications for the treatment of Latinos behind bars. As the findings demonstrate, Latinos are a varied group with different complex mental health and drug treatment

needs requiring integrated care with cultural competency including common language. Given that differential access to care is not an issue in prison, there exists an opportunity to provide quality care to Latinos in need.

3. A PARENTING INTERVENTION BOOSTING THE EFFECTS OF A CLASSROOM- BASED DRUG USE PREVENTION PROGRAM FOR LATINO YOUTH - Flavio F. Marsiglia, Ph.D. Professor, Southwest Interdisciplinary Research Center (SIRC), Arizona State University (marsiglia@asu.edu)

The purpose of this study is to test the results of a culturallyspecific parenting intervention called Familias Preparando la Nueva Generación (FPNG), which was designed to increase the effects of keepin'it REAL (kiR), an efficacious middle school-based Model drug abuse prevention intervention for Latino preadolscents as well as for youth of other ethnic backgrounds. Data come from predominantly Mexican American youth (N=216) participating in the randomized control trial who were surveyed at baseline (beginning of 7th grade) and one year following the end of the interventions, 18 months later at the end of 8th grade. This analysis focuses on youth assigned into either: (1) youth-only condition -receiving only kiR- (Y), and (2) parent + youth condition, receiving FPNG and kiR- (PY). Using multivariate linear regression path analyses, results indicate that adolescents in the PY condition had lowered alcohol and cigarette use compared to the Y condition; however, the effects were mediated through anti-drug norms. Adolescents in the PY condition had stronger anti-drug norms which resulted in lowered alcohol amount (Indirect Effect: β =-.054, p<.05), alcohol frequency (Indirect Effect:  $\beta$  =-.063, p<.05), cigarette amount (Indirect Effect:  $\beta$  =-.051, p<.10), and cigarette frequency (Indirect Effect: β =-.050, p<.10). These findings indicate that Latino/a pre-adolescent normative beliefs and behaviors can be strengthened and changed through culturally-grounded parent and youth interventions. Involving parents in FPNG has a major effect in boosting the efficacy of kiR. The culturally specific nature of these interventions is identified as contributing to the strong enhancement given by FPNG to the original KiR. The parenting intervention has much promise in boosting the effects of a classroom-based intervention for youth but more research is needed to gather further evidence of its efficacy as a stand-alone parenting intervention.

4. NON-MEDICAL USE OF PRESCRIPTION DRUGS IN EMERGING ADULTHOOD: DIFFERENTIATING SEX FROM GENDER AS A RISK FACTOR FOR NMUPD IN A COLLEGE STUDENT SAMPLE - Robert L. Peralta, Ph.D., Associate Professor, Department of Sociology, The University of Akron; Stewart, Breanna C., The University of Akron; Steele, Jennifer L., Ohio University (rp32@zips.uakron.edu)

Male-female variations in health behavior continue to be of national and international significance, with men generally being more likely to be engaged in behaviors that enhance risk across an array of preventable diseases and injuries, as well as premature deaths. This literature has identified nonmedical use of prescription drugs (NMUPD) as a developing and particularly dangerous health behavior among college students, but has yet to discuss how gender orientation (e.g., masculinity, femininity) might impact NMUPD. The purpose of this study is to fill this gap in the literature by examining the influence of gender orientation in conjunction with biological sex on NMUPD. Using survey data collected during the 2013-2014 academic year from a convenience sample of college students (N=849) at a mid-sized Midwestern university, we will examine the influence of gender orientation on NMUPD. To do this, we separate masculine and feminine scales from the Bem Sex Role Inventory and use logistic regression to test whether masculine or feminine gender characteristics influence the likelihood for NMUPD. This analysis demonstrates that selfidentified characteristics associated with femininity decrease the odds of NMUPD and thus serve as a protective factor against NMUPD. The findings from this study increase our knowledge about gender orientation and sex interactions as factors that influence NMUPD thus demonstrating the importance of differentiating sex from gender orientation

5. SOCIOCULTURAL DIFFERENCES IN DRINKING AND DRIVING RISK PERCEPTIONS AMONG RECENT LATINO IMMIGRANTS IN SOUTH FLORIDA - Mario De La Rosa. Ph.D., Professor, Center for Research on U.S. Latino HIV/AIDS and Drug Abuse (CRUSADA), Florida International University; Sanchez, M., Center for Research on U.S. Latino HIV/AIDS and Drug Abuse; Romano, E., Pacific Institute for Research and Evaluation (PIRE); Babino, R., Center for Research on U.S. Latino HIV/AIDS and Drug Abuse (delarosa@fiu.edu) Latinos don't drink and drive (DD) more often than their White counterparts, yet are disproportionately involved in alcohol-related arrests and fatal crashes. How and why these discrepancies occur, remains largely unknown. Of particular relevance is the role that immigration plays in shaping impaired driving by Latinos. Studies indicate that recent immigrants are particularly less likely to recognize the impairing effects of alcohol or understand the legal consequences of DD. Conflicting evidence suggests that undocumented immigrants. in their attempts to remain "under the radar," are among the safest drivers in the U.S. This study examines current risk perceptions associated with DD (i.e., risk of crash/being arrested) among recent Latino immigrants and the influence of sociocultural factors and pre/post-immigration driving behaviors on these risk perceptions. Data from a 5-year longitudinal study examining changes in pre- to post- immigration alcohol use among recent Latino immigrants was utilized in the present study. Extended follow-up data was collected on 467 Latino immigrants ages 21-38 that have been in the U.S. for less than 5-6 years. Participants were primarily Cuban, South and Central American immigrants—a growing segment of the U.S. Latino immigrant population. Approximately 84% were documented, while 16% were undocumented immigrants. Findings indicated that rates of pre-immigration DD were similar among documented and undocumented immigrants. At post-immigration undocumented immigrants reported more alcohol use and higher DD risk behaviors. Higher levels of acculturative stress were associated with more alcohol use and more perceived risks of DD. Males had higher rates of DD compared to females, yet no gender differences were found in levels of DD risk perceptions. While Central Americans reported significantly higher levels of alcohol use no differences in levels of perceived risk were found by country of origin. This study contributes to the limited knowledge of DD among Latino immigrants early in the immigration process. Further research is needed to uncover the level of understanding and compliance of alcohol-related traffic laws and policies as well as the underlying sociocultural factors associated with DD patterns among documented and undocumented Latino immigrants. Such research may inform prediction and prevention of these risk behaviors among the largest ethnic minority group in the U.S.

6. ESTIMATED RISK OF STARTING HEROIN USE IN THE UNITED STATES: AN ETHNICITY-SPECIFIC VIEW: 2002-2011 - Olga J. Santiago Rivera, Ph.D., Post-Doctoral Fellow, Department of Epidemiology and Biostatistics, Michigan State University; Anthony, J.C.; Michigan State University, Department of Epidemiology (osantiago@epi.msu.edu) Studying risk of becoming a heroin user for the first time in the United States (US), we estimate risk and risk differences (RD) for Hispanic/Latino versus non-H/L subgroups of young people, irrespective of birthplace, language preference or ethnic selfidentification (ESI), expecting no differences. We then study variations across H/L-ESI subgroups (e.g., US-born 'Mexican'; US-born 'Cuban'), expecting RD variations. This brief abstract presents initial estimates, with detailed RD estimates in our full

report. RD estimates are from our online analyses of National Survey on Drug Use and Health (NSDUH) public use datasets for 2002-2011, with very large US community probability samples of 12-21 year olds and standardized Audio Computer Assisted Self Interviews in English or Spanish (ACASI). We estimate age-specific annual incidence rates for heroin use, with 95% confidence intervals (CI) from delta methods. Then, meta-analysis summary estimates are derived for H/L versus non-H/L subgroups, as well as more refined H/L-ESI subgroups. Each year in the US, we see an estimated 1500 newly incident heroin users per million (1M) 12-21 year olds at risk (95% CI= 1400, 1700). The estimated risk for non-H/L is 1800 per 1M versus 1130 per 1M for H/L (RD=670; p>0.05). Irrespective of H/L background, risk estimates for 12-17 year olds are roughly ½ to 1/3rd of corresponding values for 18-21 year olds, among whom heroin risk estimates are 1510 per 1M (H/L) and 2830 per 1M (non-H/L). These relatively small RD estimates for heroin in overall contrasts has motivated our continued investigation of subgroup variations among H/L youth, with attention to ESI, birthplace, and language preference. Whereas past epidemiological studies focus on prevalence of 'being' a heroin user, in this research, we focus on 'risks of becoming a heroin user,' the possibility that these risks might be similar when H/L young people are studied as a monolithic subgroup, and the expectation that RD will vary when birthplace, language, and ESI are used to form H/L subgroups. If this expectation is correct, the resulting estimates will help guide primary prevention initiatives focused on especially high risk sub-units of the overall H/L community.

### 7. DESEO: DEPRESSION SCREENING AND EDUCATION: OPTIONS TO REDUCE BARRIERS TO TREATMENT.

Katherine Sanchez, Ph.D., Assistant Professor, University of Texas, Arlington, School of Social Work; Eghaneyan, B.H. University of Texas at Arlington, School of Social Work (ksanchez@uta.edu)

Barriers to depression treatment among Hispanic populations persistent stigma, inadequate doctor patient communication and resultant sub-optimal use of antidepressant medications. Stigma is primarily perpetuated due to inadequate disease literacy and cultural factors. Common concerns about depression treatments among Hispanics include fears about the addictive and harmful properties of antidepressants, worries about taking too many pills, and the stigma attached to taking psychotropic medications. Primary care settings often are the gateway to identifying undiagnosed or untreated mental health disorders, particularly for people with comorbid physical health conditions. Hispanics, in particular, are more likely to receive mental health care in primary care settings. Recent recommendations from the U.S. Preventive Services Task Force are that primary care providers screen adult patients for depression only if systems are in place to ensure adequate treatment and follow-up. The purpose of this presentation is to discuss the rationale, design considerations and implementation of a Center for Medicare and Medicaid Services (CMS) Hispanic Health Services Research Grant: DESEO: Depression Screening and Education: Options to Reduce Barriers to Treatment. DESEO is being conducted at one community health center whose patient population is majority Hispanic. The goals of DESEO are to 1) test a Depression Education Intervention (DEI) designed to increase disease literacy, and dispel myths about depression and its treatment among Hispanic patients thus reducing stigma and increasing treatment engagement, and 2) implement universal screening of all adult primary care patients for depression utilizing the 9-item Patient Health Questionnaire (PHQ-9) via a unique iPad Depression Screening application. The authors will also discuss the challenges associated with research conducted in "real world" settings, the translation of evidencebased interventions into practice, and the redesign involved in adoption of these interventions.

8 THE ASSOCIATION OF ALCOHOL USE WITH CARDIOVASCULAR RISK IN A COHORT OF PUERTO RICAN ADULTS: THE MEDIATING EFFECT OF BODY INFLAMMATION -Sandra Arevalo, Ph.D., Clinical Laboratory and Nutritional Sciences, College of Health Sciences, University of Massachusetts; 1S.P. Arévalo; 2L.M. Falcon; 1K.L. Tucker

1Clinical Laboratory and Nutritional Sciences, University of Massachusetts (UMass), Lowell, MA. 2College of Fine Arts, Humanities and Social Sciences, UMass, Lowell, MA (sandra\_ arevalogarcia@uml.edu)

A light to moderate alcohol consumption is found associated with a reduced risk of cardiovascular disease (CVD). An antiinflammatory effect is suggested to be the mediating path conferring the protective effect of moderate alcohol use on reduced risk of CVD. However, few studies have examined this association in ethnic minority populations. We used data from the Boston Puerto Rican Health Study, a populationbased prospective cohort of adult Puerto Ricans between the ages of 45 and 75 years to examine the relationship of alcohol intake with CVD, using the Framingham Risk Score, and evaluated whether this relationship was mediated or modified by inflammatory markers, using the C-reactive protein (CRP) biomarker. Results of multivariate regression models supported a protective association of moderate alcohol use on CVD risk ( $\beta$ =-1.18; SE=0.53;  $\rho$ <0.05). CRP mediated the association of alcohol use with CVD risk. Results of the Sobel test suggest that the association between alcohol use and CVD risk was significantly mediated by CRP levels (z' = -1.95, p=0.050). These results are in line with findings suggesting the link between moderate alcohol consumption and cardiovascular health may be related to an antiinflammatory effect of moderate alcohol use. We add to this literature by testing this association in an ethnic minority group.

8. THE DRUG USE PATTERNS OF LATINO DAY LABORERS IN A NEW IMMIGRANT SETTLEMENT CITY - Nalini Negi, Ph.D., Associate Professor, School of Social Work, University of Maryland; Valdez, Avelardo and Cepeda, Alice; University of Southern California (nnegi@ssw.umaryland.edu)

Despite the estimated 11.2 million unauthorized immigrants that live in the U.S., there is an absence of a well-defined understanding of this population's drug use epidemiology. Studies suggest that Latino immigrant day laborers, many of whom are undocumented, are at heightened risk of drug abuse and dependence given their distinct social, situational and contextual circumstances (i.e., isolation, immigration status, residence in low income neighborhoods). With Latinos having some of the lowest rates of access and utilization of drug treatment and related health services, research on the social epidemiology of drug use and related HIV risk behaviors is needed to reduce existing health disparities among this population. Utilizing a rapid assessment methodology, qualitative interviews were conducted with 77 Latino male immigrant day laborers in Baltimore. Participants were recruited from day labor sites, were male 18 years of age or older; self-identified as being from a Latin American country. and currently residing in Baltimore, Maryland (at least one year) and working as a day laborer (at least six months). The mean age was 37.7 years and all were foreign born, with the largest percentage reporting Mexico (26.3%) followed by Honduras (25%), El Salvador (22.5%), Guatemala (15%) and other Latin American countries (11.3%). Analysis of the qualitative data consisted of defining the broad dimensions and specific variations distinguishing the patterns of drug use. During the month prior to the interview, participants reported the use of alcohol (94.8%), marijuana (63.6%), cocaine (46.3), crack (17.5%) and heroin (10.4%). Of particular interest are the high rates of heroin use. Of those who reported any drug use in the past month, 15.4% reported heroin use, previously found by other studies to be very low, among this population. The emergence of heroin use and other drugs among this

sub-group of Latino immigrant day laborers is particularly problematic from a public health perspective as this population tends to lack access to preventative and health care services. Implications include this immigrant population's potential to act as a "bridge for infection" in the spread of HIV and other blood borne pathogens.

10. AN OUNCE OF PREVENTIONI WORTH A POUND OF THE CURE: TOWARD THE REDUCTION OF RISK FOR SUBSTANCE USE IN YOUNG U.S. LATINA/O CHILDREN

Acevedo-Polakovich, Dl., Ph.D., Associate Professor, Center for Center for Children Families and Communities, Central Michigan University; Niec, L, Central Michigan University (david.acevedo@cmich.edu)

This project advances the programmatic development of a selective preventive intervention designed to engage and retain the families of young U.S. Latina/o children at risk for later substance use problems. Prior research identified specific cultural and contextual factors likely to promote the engagement and retention of Latina/o families (Acevedo-Polakovich et al., 2014; Niec et al., 2014). These factors guided the adaptation of an existing preventive intervention. The current project explored the perceived acceptability of the adapted intervention among two different groups of end users. Small scale, mixed-method feedback groups were run with Latina/o parents of 2-7 year-olds (N = 8) and natural helpers (N = 10) serving Latinas/o families of young children. After reviewing the adapted intervention protocol, participants provided feedback via treatment acceptability scales, ratings of specific intervention components, open-ended written comment and through focus group discussions about the intervention protocol. Participants gave the adapted protocol very high scores on the Abbreviated Acceptability Rating Profile (AARP; Tarnowski & Simonian, 1992) (NH M= 44.29 [SD = 3.73]; Parent M=45.57 [SD = 3.50]) and on the Treatment Evaluation Inventory-Short Form (TEI-SF; Kelley, Gresham, & Elliott, 1989) (NH M= 38.65 [SD = 5.46]; Parent M=37.57 [SD = 3.46]). With the exception of the session length, which received average ratings of 3.5 (natural helpers) and 3.75 (parents), each specific component received an average rating of 4 or higher (Maximum Score = 5). While open ended written feedback was generally positive both regarding the format (sample comments: "Nice design. It anticipates the needs of the [interventionists]," "The layout feels natural, not clinical," "... easy to access and follow") and content (e.g., "People need this," "Appropriate and empowering", "Very Latina/o") of the intervention, a few participants suggested that session length may lead to tolerability difficulties. Results support the acceptability of the adapted intervention and provide additional directions for its refinement. The intervention protocol appears promising for initial pilot and efficacy testing in a community setting. If found efficacious, the adapted intervention has promise in helping assuage the disparities in access to preventive interventions among Latina/o children at risk for substance use problems, thus reducing the later need for costly intervention.

11. INTEREST IN FREE LASER TATTOO REMOVAL AMONG VULNERABLE PERSONS IN MEXICO - Victoria Ojeda, Ph.D., Associate Professor, Division of Global Public Health, University of California, San Diego; Pinedo, M., UCSD School of Medicine; Vargas, A., Universidad Autonoma de Baja California; Burgos, JL, UCSD School of Medicine (vojeda@ucsd.edu)

Research studies suggest that some non-tattooed persons stigmatize tattooed individuals. Persons may seek tattoo removal for diverse reasons including: to "remove the label of belonging to a bad group...," "to help me separate from previous life experiences" and "improve job prospects". Tis study identifies factors associated with interest in receiving free clinic-based laser tattoo removal services. This analysis is based on data from a subsample of 287 tattooed patients attending

a free clinic in Tijuana, Mexico. The study was conducted in 2013. Inclusion criteria for the study were: (1) being ≥18 years old; (2) seeking healthcare; (3) speaking Spanish or English. Participants responded to an interviewer-administered survey on tattooing, health and employment issues. We conducted descriptive and multivariate logistic regression analyses. Overall, 48% of 603 clinic patients have a tattoo. Of tattooed patients, 56% (n=162) are interested in removing ≥1 tattoo and 69% (n=198) would be interested in receiving freetattoo removal services at the clinic. Persons interested in clinicbased tattoo removal were male (75%), lacked an official government identification (59%), ever migrated to or were deported from the U.S. (81% and 63%, respectively), 75% dislike their tattoos, and 66% have experienced work related barriers because of their tattoos. In multivariate logistic regression analysis, persons with a government identification were more likely to be interested in removing tattoos at the clinic (Adj. Odds Ratio (AOR): 2.13; 95% Confidence Interval (CI) 1.08, 4.24), as were persons who dislike their tattoos (AOR: 8.24, 95% CI: 4.42, 15.3), and those who experienced employment barriers related to their tattoos (AOR: 3.04, 95% CI: 1.47, 6.30) Some tattoos are more stigmatized in Mexico, especially by employers. Offering free tattoo removal services in community-based clinics that serve vulnerable persons may be one component of a community reintegration and labor market opportunities program. A free laser tattoo removal service is being tested now to assess impacts on participants' lives, including labor market involvement.

12. INSULIN MODULATES THE ENHANCED REWARDING EFFECTS OF NICOTINE IN DIABETIC VERSUS CONTROL RATS - Joseph A. Pipkin, Doctoral Student, Department of Psychology, University of Texas at El Paso 1C. A. Hinojosa, 1V. Edwards, 1A. Perez, 2A. Nazarian, 1L. E. O'Dell; 1University of Texas at El Paso and 2Western University (jpipkin264@ yahoo.com)

The underlying mechanisms that promote tobacco use in persons with diabetes are not clear. Work in our laboratory has demonstrated that diabetic rats display enhanced rewarding effects of nicotine in conditioned place preference (CPP) and intravenous self-administration (IVSA) procedures. This study examined whether the latter effects are insulinmediated. Methods: Male rats first received administration of streptozotocin (STZ), a drug that destroys insulin-producing cells in the pancreas and produces hyperglycemia. After STZ administration, the rats were either surgically implanted with an insulin pellet or they received a sham surgery. Two-weeks later, the rats were implanted with IV catheters and were tested for nicotine IVSA and others were conditioned with repeated nicotine injections in the presence of distinct environmental stimuli in our CPP apparatus. Results: Insulin replacement normalized the rewarding effects of nicotine in diabetic rats to control levels in the IVSA procedure. However, insulin did not alter nicotine reward in the CPP paradigm. Conclusion: Our results suggest that insulin modulates the direct reinforcing effects of nicotine, as measured by the IVSA studies. However, insulin may be less critical for modulating the conditioned reinforcing effects of nicotine as assessed in CPP procedures. Future studies are needed to further explore the mechanisms by which insulin modulates the rewarding effects of nicotine in diabetic rats.

13. INTERNET ADAPTATION OF A DRUG USE AND SEXUAL RISK BEHAVIOR PREVENTIVE INTERVENTION FOR HISPANIC FAMILIES: FEASIBILITY AND PRELIMINARY FINDINGS - Yannine Estrada, Sr. Research Associate III, Department of Public Health Sciences, University of Miami; Rosen, A., Tapia, M., Sardinas, K.; Poma, S., Pantin, H., Prado, G., University of Miami (yestrada@miami.edu)

To date, no online/eHealth interventions have been developed to prevent both drug use and sexual risk behaviors among Hispanic youth. Therefore, the purpose of this study was to

develop and pilot test an eHealth adaptation of Familias Unidas, an evidence-based drug use and sexual risk behavior preventive intervention, for Hispanic adolescents. This study includes results from: 1) an acceptability/feasibility pilot study and 2) an ongoing randomized controlled trial. The pilot study included development of eHealth Familias Unidas and a mixed methods study. The eHealth adaptation of Familias Unidas consists of eight "mock" parent group sessions and four family sessions delivered over the internet (in Spanish or English). The mock groups are designed to recreate the content and process of the eight parent groups in face-to-face Familias Unidas. Each of the "mock" parent group sessions contain a telenovela (soap opera), a videotaped and edited parent group, and interactive exercises. The second phase of this study includes an evaluation of eHealth Familias Unidas in an ongoing randomized controlled trial. A total of 256 Hispanic 8th graders and their primary caregivers will be assessed at baseline, randomized and re-assessed at 6, 12, and 24 months post-baseline. The below results are from the first cohort of 73 participants. Qualitative analyses indicate positive reception to the overall intervention. Pilot findings indicate a 78% overall program completion rate; 74% completion rate for family visits, and; 79% for mock group sessions. Preliminary analysis from the main trial indicate that eHealth Familias Unidas in a school setting has high family engagement (mean number of sessions participated in = 8.4; SD = 4.6) and is having a significant effect on parent-adolescent communication (b = -5.11; p = .05), eHealth Familias Unidas' targeted mediator. Overall, findings indicate that it is feasible to adapt face-to-face Familias Unidas into an eHealth intervention. The eHealth Familias Unidas intervention seems promising for engaging Hispanic families into prevention and impacting family processes such as parent-adolescent communication. Strategies to enhance user engagement and recreate a participatory learning experience among parents enrolled in online preventive interventions should be considered as additional risk-reduction approaches

14. THE ROLE OF RELIGIOSITY ON THE IMMIGRANT HEALTH PARADOX: RESULTS FROM THE NLAAS - Oswaldo Moreno, M.A. & Esteban Cardemil, Ph.D. Clark University (OsMoreno@clarku.edu)

Recent Census estimates suggest that over one-half of the Latino population consists of first generation immigrants. Despite the risk factors experienced by first generation Latino immigrants, research has consistently shown that these immigrants demonstrate better health than their U.S. born Latino counterparts. Possible explanations have included selective migration, circular migration patterns, as well as psychosocial variables that might serve as protective factors. However, very little empirical research has examined other possible explanations for the Immigrant Health Paradox. Religiosity is an area that has not been extensively considered as a possible explanation for the Immigrant Health Paradox. This study therefore re-analyzed data from the NLAAS (Alegría et al., 2004) to investigate how 1st generation Latino immigrants and U.S. Born Latinos may differ with their levels of religiosity in relation to mental health. The NLAAS provides national information on the prevalence rates of mental disorders among Latinos. Results revealed 1st generation Latino immigrants displayed significantly higher levels of religiosity (M = 2.94) than U.S. Born Latinos (M = 2.72). Results also indicate that higher religiosity has a statistically significant negative relation with lifetime prevalence rates of any depressive disorder (p = 0.01), any anxiety disorder (p = 0.04), and any substance use disorder (p < 0.001). Finally, results indicate that religiosity is a statistically significant mediator for the relationship between acculturation and the prevalence rates of any substance abuse disorder (p = 0.12), but not for any depressive disorder (p = 0.07) nor of any anxiety disorder (p = .11).

15. "JUST A LITTLE PIECE": ACCEPTABILITY OF HAIR CORTISOL COLLECTION AMONG WOMEN IN SUBSTANCE USE TREATMENT - Carolina Villamil, Doctoral Student, University of Southern California, School of Social Work; Spear, S.E., California State University, Northridge, Bearer, E., University of New Mexico, Amaro, H., University of Southern California (cvillami@usc.edu)

As part of a planned RCT of a SUD stress-reduction intervention, we investigated acceptability of hair collection for cortisol testing compared to other biomarkers among racially/ ethnically diverse women in early (< 4 months) SUD residential treatment. Prior research on acceptability of hair collection has focused on the detection of substance use, which may partially explain previously reported high refusal rates (Colón et al., 2001; Fendrich et al., 1999; Kline et al., 1997). Twentytwo women (46% Hispanic, 36% non-Hispanic Black, 18% non-Hispanic White) completed interviews assessing their willingness to consent to hair, saliva, breath-alcohol, and urine collection. One-way ANOVA and post-hoc comparisons using Bonferroni correction for multiple comparisons were conducted to assess differences between acceptability ratings of biomarker tests. Open-ended comments about hair collection concerns were sorted into categories. Most (95%, n=21) rated the likelihood (1=very unacceptable to 5=very acceptable) of participating in the planned study as likely or highly likely. Hair collection specifically was rated as acceptable or very acceptable by only 54.5%. Mean hair acceptability ratings were similar to urine tests, but lower than for saliva (p=.01) and breath-alcohol (p=.03); and varied between Black (2.9), Hispanic (3.3) and non-Hispanic White (4.8) women. Concerns about providing hair samples included those previously noted by Fendrich et al. (1999): insufficient hair, appearance and general discomfort/mistrust. We found two other concern categories: procedures (e.g., hair collection frequency and advance notice so women could prepare their hair) and amount of compensation. Those less accepting of hair collection were willing to provide samples if frequency of hair collection was minimized and spread out over time, hair was taken from an area not visible, and compensation was more than \$10 per sample. To improve study recruitment, research should examine acceptability of hair cortisol collection across race/ethnicity to identify concerns and develop study procedures responsive to participant concerns. Acceptability of hair collection may also be a function of potential participants' interest in the purpose of the study. Despite concerns about hair collection among some women, the vast majority was willing to participate because they felt that the study's purpose (intervention for stress reduction) would benefit them.

16. CLASSIFYING CLIENTS INVOLVED WITH UNDERAGE DRINKING DIVERSION PROGRAMMING. - Natasha. S. Mendoza, Ph.D., Assistant Professor, School of Social Work, Arizona State University: E. Anthony, D. Roe-Sepowitz. Arizona State University, School of Social Work (Tadoza@asu.edu)

Alcohol and drug use of youths in late adolescence (YLA) is associated with serious safety and risk factors that can lead to numerous harmful consequences throughout the life cycle. Little is known about the heterogeneity among YLAs entering diversion programs and the impact of client characteristics on clinical decision making and program completion. This study utilized latent class analysis (LCA) and non-parametric tests to characterize program participants. Study Objectives of the study were to: 1) identify subgroups of YLAs in the Southwest based on substance use characteristics and 2) examine the differences among groups based on clinical decision making, treatment type, and program completion. The current study is a secondary analysis of an Underage Drinking and Alcohol Possession Diversion Program in the Southwest. Available data included 1,260 court-referred YLAs (2009-2011). Data related to alcohol and drug problems were collected via Substance Abuse Subtle Screening Inventory. LCA demonstrated a three-

class solution (AIC= 15729.37, BIC= 15909.23, entropy = .92). Bootstrapped likelihood ratio and LMR tests were significant. The high risk group (5%; n=66) and the moderate risk group (35%; n=446) were characterized by higher use of alcohol and marijuana, being over the legal limit at arrest (compared to moderate and low risk groups). Being male was related to being in the high risk group, whereas the moderate risk group was associated with being white and having less education than the higher risk group. Being female and attending college was associated with being in the low risk group (59%; n=748). For the low risk group, chi-square tests demonstrated lower instances of referral to treatment decisions and higher program completion compared to moderate and high risk groups. Findings highlight heterogeneity of YLAs based on demographics and these group differences may have implications for clinical decision making, treatment type, and completion. Results underscore the need to adapt diversion programs to meet the needs of substantially different YLAs.

17. ALCOHOL USE AMONG LATINO YOUTH: COGNITIVE AND CONTEXTUAL EXPLANATIONS OF THE IMMIGRANT PARADOX - Guadalupe Bacio, Ph.D., Postdoctoral Scholar, Department of Psychiatry, University of California, San Diego; Ray, L. University of California, Los Angeles (gbacio@ucsd.

Latino youth born in the United States (U.S.) tend to exhibit worse health outcomes than their immigrant counterparts, a pattern known as the immigrant paradox. The aims of this study were to (1) test the immigrant paradox in drinking initiation among Latino youth, and (2) examine potential explanations of this pattern that include key contextual dimensions for Latino adolescent development (i.e. familismo, parental monitoring, association with substance using peers, perception of peer substance use norms) and proximal factors for drinking typically studied among general adolescents (i.e. alcohol expectancies, propensity for risk-taking). A sample of 130 non-U.S.-born (28%) and U.S.-born Latino youth in grades 9th-11th (40% male) was recruited from a local high school to complete a series of self-report measures and a behavioral task (e.g. the Balloon Analogue Risk Task). Consistent with hypotheses, U.S.-born teens were twice as likely as their immigrant counterparts to start drinking in adolescence. However, once teens started drinking, U.S.-born and non-U.S.-born youth reported similar number of drinking episodes and drinks per drinking episode. Mediation analyses indicated that perception of peer substance use norms ( $\beta$ = .31, 95% CI [.07, .77]) and valuations of negative drinking expectancies  $(\beta = .35, 95\% \text{ CI } [.04, .82])$  were simultaneous explanations of this pattern. Findings indicated that the immigrant paradox was evident in initiation of alcohol use but not in severity of drinking thereby suggesting that delaying drinking initiation among this group is critical. Results highlighted that both the developmental context of Latino youth as well as salient cognitive determinants of adolescent drinking are important in helping explain the immigrant paradox in drinking initiation. Addressing these two tractable mechanisms underlying the immigrant paradox represent opportunities for prevention efforts to delay drinking initiation among Latino youth.

18. LONGITUDINAL ANALYSIS OF CHANGES IN LIVING ARRANGEMENTS AND HEALTH RELATED BEHAVIORS AMONG OLDER LATINA WOMEN - Gira J. Ravelo, Doctoral Student, Center for Research on US Latino, HIV/AIDS, and Drug Abuse (CRUSADA), Florida International University; M. Kanamori; P. Rojas; M. De La Rosa Florida International University, Center for Research on US Latino, HIV/AIDS, and Drug Abuse (gravelo@fiu.edu)

This five year longitudinal study will examine the association between changes in living arrangements and health related behaviors among older Latina women (50 years and over) living in South Florida. Previous research has investigated the health behaviors of women in different living arrangements such as living alone, alone with children, with partner, or with others and has found different associations. Although these studies have included older women, few studies have focused longitudinal data and even less on older Latina women. This study will attempt to address that gap in the literature and examine how the people that older Latinas live with or without affect their health practices. Secondary data analyses include chi-square statistics and logistic regression modeling (N=114). Variables regarding health and wellbeing include questions like, "Have you made a visit to the physician in the last 12 months?" and "Do you engage in meditation, contemplation... to better understand yourself?" Older Latinas living only with their children were less likely to have breast exams [OR = 0.18; p=.020], Pap-smear test [OR = 0.43; p=.034], and mammograms [OR = 0.34; p=.011]. Older Latinas living only with a partner were more likely to engage in meditation [OR = 7.00; p=.035] and less likely to perform cardiovascular exercise [OR = 0.13; p=.044]. Cross sectional study shows older Latinas' living arrangements play an important role in their use of cancer preventive services and healthy lifestyle. Longitudinally we will analyze if living arrangements and health related behaviors, as well as the associations between them. have changed after 7 years. The current study is designed to build on preliminary data and enhance findings and conclusions about cause and effect.

19. CRIMINAL THINKING STYLES IN SUBSTANCE DEPENDENT AND MENTALLY ILL OFFENDERS BEFORE COGNITIVE BEHAVIORAL TREATMENT IN A CORRECTIONAL SETTING - Maria Felix-Ortiz, Ph.D., Associate Professor, Department of Psychology, University of the Incarnate Word; Stares, H., Garza, A. M., University of the Incarnate Word (felixort@uiwtx.edu)

In this study, we examine the initial criminal thinking styles of two samples of mostly Latino male misdemeanor offenders. We randomly selected a sample of 15 substance dependent offenders [SD] to compare to 15 offenders with co-occurring mental illness and substance dependence [MISD], and we administered the TCU Criminal Thinking Scales (CTS; Knight, Garner, Simpson, Morey, & Flynn, 2006) at admission, and at 90 days after the interventions. We hypothesized that the MISD offenders would score lower than SD offenders on CTS subscales of Justification, Entitlement, Criminal Rationalization, and Personal Irresponsibility. Relative to a comparison group of offenders studied by Knight et al. (2006), MISD offenders had higher than average scores on Personal Irresponsibility and Entitlement, but were lower than average on Criminal Rationalization. However, MISD scored higher than SD offenders on all the scales except for Cold Heartedness, where groups were both average in their scores relative to Knight et al.'s norms. Relative to these norms, SD offenders were slightly below average on all scales except Cold Heartedness, for which they scored similar to the norms. These results suggest that MISD offenders may blame their mental illness for their criminal behavior and, as a result, feel that "society owes them." MISD offenders might require more pointed disputation of these beliefs than do those SD offenders who are not mentally ill. However, both SD and MISD offenders still retained some belief in the criminal justice system as evidenced by lower scores on Criminal Rationalization, and this, along with a low score in Cold Heartedness, might suggest that they are likely to respond well to the intervention offered in the correctional setting.

20. DEPRESSIVE SYMPTOMS AND EXTERNALIZING BEHAVIORS AMONG HISPANIC IMMIGRANT ADOLESCENTS: EXAMINING LONGITUDINAL EFFECTS OF CULTURAL STRESS - Miguel Ángel Cano, Ph.D., Assistant Professor, College of Public Health & Social Work, Department of Epidemiology, Florida International University; S.J. Schwartz (University of Miami), L.G. Castillo (Texas A&M University), A.J. Romero (University of Arizona), S. Huang

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Theoretical models posit that the burden of cultural stressors may increase the probability of poor mental health and externalizing behaviors among Hispanic adolescents. Research also suggests that Hispanics who immigrate to the U.S. as adolescents report more cultural stressors compared to those who immigrate as young children. Thus, more research is needed to investigate cultural stressors and health-related outcomes among recently immigrated Hispanic adolescents. Method: The present study examined the longitudinal effects of cultural stress (a latent factor score comprised of bicultural stress, ethnic discrimination, and negative context of reception) on depressive symptoms and externalizing behaviors among recently (≤5 years in the U.S. at baseline) immigrated Hispanic adolescents. This study also examined if gender and study site (Miami and Los Angeles) moderated the main effects. A sample of 302 adolescents (53% boys; mean age 14.51 years) completed baseline measures of perceived ethnic discrimination, bicultural stress, and perceived negative context of reception; and outcomes measures of depressive symptoms, cigarette smoking, alcohol use, aggressive behavior, and rule-breaking behavior six months postbaseline. Results: A path analysis indicated that higher cultural stress scores predicted higher levels of all outcomes. These effects were consistent across gender, but varied by study site. Specifically, higher cultural stress scores increased depressive symptoms among participants in Miami, but not in Los Angeles. Conclusion: Findings suggest that cultural stress is a clinically relevant predictor of depressive symptoms and externalizing behavior among Hispanic immigrant adolescents.

21. DIFFERENCES ON RISKY DRINKING INCIDENCE AMONG HISPANIC GROUPS LIVING IN THE UNITED STATES - C.F. Ríos-Bedoya, Ph.D.; O.J. Santiago-Rivera; C.F. Ríos-Santiago. Michigan State University (carlos.rios@hc.msu.edu)

The objective of this study is to determine differences on the incidence of risky drinking across Hispanic subgroups living in the United States (US). Data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) wave 1 and wave 2 were analyzed. The study sample consisted of non-Hispanic whites (comparison group; n=4791) and Hispanics (n=1289). Hispanics were classified into the largest Hispanic groups living in the US (i.e., Mexican-Americans, Puerto Ricans, Cuban-Americans, and Others). Excluded were participants that reported risky drinking on wave 1 of the NESARC. Weighted incidence estimates were calculated for each race/ ethnic group. Also, weighted unadjusted and adjusted logistic regressions were performed to assess the risk of risky drinking. The weighted incidence for non-Hispanic whites was 22.4% (95% CI: 20.8%-24.1%); Mexican-Americans, 34.1% (95% CI: 29.3%-38.9%); Puerto Ricans, 32.0% (95% CI: 23.4%-40.5%); Cuban-American, 19.5% (95% CI: 12.7%-26.3%); and Others, 26.6% (95% CI: 19.9%-33.2%). The weighted odds ratio (OR) compared to non-Hispanic whites were for Mexican-Americans, 1.8 (95% CI: 1.4-2.4; p<0.001); Puerto Ricans, 1.6 (95% CI: 1.0-2.6; p=0.047); Cuban-Americans, 0.8 (95% CI: 0.4-1.4; p=0.422); and Others, 1.2 (95% CI: 0.8-1.9; p=0.322) after adjusting for sex, alcohol age of onset, education, marital status, and place of birth (US born or non-US born). There are significant differences on incidence and risk for risky drinking across Hispanic groups in magnitude and direction. These findings support avoiding grouping Hispanics into a single ethnic group. Prevention strategies must not follow the onesize fits all approach.

22. THE FEASIBILITY AND ACCEPTABILITY OF AN EHEALTH INTERVENTION FOR LATINO YOUTH IN PRIMARY CARE: A PILOT STUDY - Lourdes Molleda, University of Miami Miller School of Medicine, Department of Public Health Sciences, Division of Prevention Science and Community Health; Prado, G., Estrada, Y., Rosen, A., Pantin, H.; University of Miami Miller School of Medicine, Department of Public Health Sciences (L.Molleda@med.miami.edu)

With the passing of the Patient Protection and Affordable Care Act, primary care is becoming an ideal setting to implement efficacious and effective preventive services. Familias Unidas, an evidence-based, family-centered HIV preventive intervention, has demonstrated to be efficacious and effective in reducing substance use and sexual risk behaviors in Hispanic adolescents. To date, it has been exclusively delivered faceto-face in school settings. The purpose of this pilot study is to examine the feasibility and acceptability of delivering an e-health adaptation of Familias Unidas to participants recruited from the primary care setting. Forty one Hispanic youth and their parents have been recruited from three South Florida pediatric primary care clinics and randomly assigned to either e-health Familas Unidas or one of two control conditions (recruitment is still ongoing). The e-health adaptation is composed of eight educational video sessions on the Familias Unidas website and four family visits. The family visits are led by a trained facilitator from the clinic staff or research team via an Internet communication technology. Participants randomized to e-health Familias Unidas have participated at high rates, and ongoing qualitative data collection from study participants suggest that the intervention is highly acceptable (intervention activities are still ongoing). Similar qualitative data collected from clinic physicians and staff suggest that it is feasible to deliver an evidence-based preventive intervention within primary care without major disruption to clinic flow and without staff burnout. In summary, primary care represents an important venue in which to integrate evidence-based preventive interventions. Studies such as the feasibility and acceptability study conducted by Familias Unidas are yielding critical information necessary to design large-scale effectiveness and implementation studies in this setting.

23. LYMPHATIC LEAK AND LYMPHATIC-ADIPOSE CROSSTALK; ROLE IN ALCOHOL-INDUCED METABOLIC DYSREGULATION - Flavia Souza-Smith, Ph.D., Instructor, Department of Physiology, Louisiana State University Health Sciences Center, New Orleans; Molina, PE, Department of Physiology, Louisiana State University Health Sciences Center (fsouz1@Jsuhsc.edu)

Our previous studies showed that acute alcohol intoxication increases mesenteric lymphatic permeability and circulating adiponectin levels. Repeated binge-like alcohol intoxication (RBAI) episodes induce whole-body insulin resistance, increasing the risk for metabolic syndrome and type 2 diabetes. We hypothesize that lymphatic hyper-permeability resulting from RBAI promotes perilymphatic adipose tissue (PLAT) inflammation, dysregulates adipokines and insulin signaling. To test this hypothesis, chronically instrumented (intragastric catheter) male Sprague-Dawley rats received an intragastric bolus of 2.5 g/kg/day of alcohol (12.5% alcohol w/v) or isocaloric dextrose in Vanilla Ensure (116 kcal/kg/day) for 3 days. Mesenteric lymphatic permeability, PLAT inflammatory milieu and adipokines, and insulin (0.25 U/kg)-stimulated AKT phosphorylation were determined following alcohol/dextrose administration. RBAI resulted in greater leak of Evans Blue into PLAT, higher tissue expression of inflammatory cytokines (IL1a, IL113, IL6, and GM-CSF), unaltered PLAT leptin expression but greater PLAT PAI-1 expression, and attenuation of insulinstimulated AKT phosphorylation (Ser473) compared

to dextrose-treated control animals. These results suggest that RBAl-induced mesenteric lymphatic hyper-permeability promotes inflammatory milieu, increases PAl-1 and impairs insulin signaling in PLAT. We speculate that increased gut-

derived toxins promote lymphatic leak leading to lymphatic-PLAT crosstalk, which we predict disrupts metabolic regulation and contributes to increased risk for systemic alcohol-induced insulin resistance.

24. SUCCESSULLY BOOSTING DIVERSITY IN HISPANIC DRUG ABUSE RESEARCH: EVALUATION OF THE INTERDISCIPLINARY RESEARCH TRAINING INSTITUTE Avelardo Valdez, Ph.D., Professor, University of Southern

California, School of Social Work; Cepeda, A.; University of Southern California (avelardv@usc.edu)

This study will report on the evaluation outcomes of the Interdisciplinary Research Training Institute on Hispanic Drug Abuse (IRTI), a research education program aimed at promoting the career development of pre-doctoral, postdoctoral, and early career scientists interested in research that affects the Hispanic population. Recent attention has been given to increasing diversity in the academic career pipeline. For instance, Volkow (2014) highlights attrition among underrepresented minorities as a critical factor, at every academic stage, in comparison to whites. In 2010, only 3.5% of principal investigators on NIH grants were Hispanic. Increasing the number of Hispanics and other minorities in health research may be best achieved through mentorship (Johnson et al., 2000). Nonetheless, the empirical literature on factors associated with effective mentorship of research scientists, particularly minority scientists, remains sparse (Jeste et al., 2009). The IRTI program consists of providing an infrastructure that consists of three core activities to research fellows including: Training, Mentoring and Networking. A total of 46 fellows (60%) female) have participated in the IRTI program. An evaluation was conducted to assess the aims, objectives, programmatic training activities, and outcomes of the IRTI. Overall, a large proportion of the IRTI fellows have successfully advanced their drug abuse research careers. Specifically, results indicate a 53% NIH funding rate. Furthermore, outcomes indicate that 100% of the fellows have published in peer-reviewed journals and/or presented at national conferences. Networking results found that a majority of fellows have collaborated (44) with IRTI faculty on scholarly publications. Moreover, of the pre-doctoral fellows, career outcomes included successful comprehensive exams, advancement to candidacy, and Ph.D. graduates. Other outcomes included postdoctoral positions and promotion of tenure. The mentorship evaluation reveals that fellows who submitted NIH applications had significantly higher number of contacts (7.7) with their mentor compared with those with no NIH submissions (5.4). Overall findings indicate the importance of mentorship training programs to increase the number of early career investigators in the career pipeline focused on improving the health of minorities. The findings of this evaluation have the potential to inform future development of effective mentoring programs for minority research scientists.

25. YOUNG CRACK USERS AND RISK MANAGEMENT IN DIFFERENT CONTEXTS IN MEXICO CITY - Mario Dominguez, Direccion de Investigaciones Epidemiologicas y Psicosociales; JIMENEZ Alberto, Instituto Nacional de Psiquiatria; Natera Guillermina, Instituto Nacional de Psiquiatria; Cepeda Alice, University of Southern California; Valdez Avelardo, University of Southern California (mariodom@imp.edu.mx)

Studying crack use among young people responds to the obvious gap that exists in Mexico on quantitative or qualitative data about it. This paper attempts to provide meaningful information generated from the spaces in which this drug is consumed. It represents an attractive field of study because crack is a devastating drug at individual and social levels. There is evidence that crack is associated with crime, violence and HIV transmission. Our aim is to know the way young people smoking crack manage risks involved in the use of this substance in different contexts in Mexico City. This research

considered young crack users from Mexico City as research subjects. The sample included 150 participants (114 men and 36 women), ages between 18 and 34 years. Data were collected in three districts of Mexico City using ethnographic interviews. Immersion and direct experience gave contact with the informants. The techniques used were snowball, immersion, and social mapping. Consumption patterns of young poly-drug users in various socioeconomic contexts are different from those usually observed in other places.

26. PHYSICAL CHANGES ASSOCIATED WITH CRACK USE IN YOUNG USERS IN MEXICO CITY NEIGHBORHOODS Jobsan A. Ramirez, Doctoral Student, National School of Anthropology and History Mexico (job\_jobsan@hotmail.com) The patterns of crack use in Mexico City (popularly known as "piedra") have contributed to new emerging risk behaviors and social and health consequences. Using an anthropological perspective, this presentation attempts to characterize the meanings, emotions, lived experiences, and structures that contribute to detrimental physical consequences associated with patterns of "chronic" crack use. Data for this analysis is based on a binational collaboration between the University of Southern California and the Instituto Nacional de Psquiatría "Ramón de la Fuente Muniz". In-depth qualitative life history narratives from ten case studies were analyzed. Findings reveal complex processes associated with the transformation and emergence of physical deterioration (premature aging, loss of teeth, etc.), the stigma that identifies them as crack users (e.g. piedroso), and the ways in which they manage stigma in social interactions. Discussed is the unique cultural context within disadvantaged communities in Mexico City that underlie these drug risk behaviors.

27. BARRIERS TO RETENTION IN LONGITUDINAL HIV MEDICAL CARE FOR HIV-INFECTED HISPANIC IMMIGRANTS IN METROPOLITAN BOSTON - Julie Levison, M.D., General Internal Medicine, Massachusetts General Hospital, Harvard Medical School; 2,3LM Bogart; 1IF Khan; 4H Amaro; 2,5M Alegria; 1,2S Safren; 1Massachusetts General Hospital; 2Harvard Medical School; 3Boston Children's Hospital; 4University of Southern California; 5Cambridge Health Alliance (jlevison@partners.org)

We collected qualitative data from 31 HIV-infected Hispanic immigrants in metropolitan Boston. Individuals were eligible if they were HIV-infected, aged ≥18 years, and were born in Puerto Rico or other Latin American Spanish-speaking countries. Bilingual research staff assessed barriers to HIV care and health beliefs through semi-structured interviews. Retention in HIV care was defined as self-reported attendance at ≥1 routine visit with an HIV provider in the past 6 months or medical record review indicating ≥1 HIV visit every 6 months in the 12 months prior to the interview (the latter consistent with national guidelines). We also measured missed routine HIV visits from the medical record. We employed an inductive approach to category construction guided by an adapted version of the Andersen Model of Health Care Utilization to analyze the data. Most participants were from Puerto Rico (45%) or the Dominican Republic (20%) with the remainder from Mexico, Colombia, and Central America. Half (48%, N=15) of the cohort either was not retained in HIV care, defined above, or had missed ≥1 HIV medical visit in the past year. HIV-related stigma in the Hispanic community was frequently reported as a significant barrier to retention in HIV care by inhibiting disclosure of HIV status. Men who reported sex with men cited strict cultural beliefs in masculinity (machismo) as a factor promoting HIV-related stigma. Other key barriers to keeping HIV care appointments were mental health-related (e.g. episodes of substance abuse or severe depression), and structural (e.g. transportation costs and inconvenient clinic location or clinic hours). Trust and respect in the HIV provider as well as family support facilitated retention in care. HIV-infected Hispanic immigrants in this sample experienced

significant barriers to retention in care linked to HIV-related stigma, cultural norms, and logistical constraints in accessing HIV care. These barriers suggest the need for interventions at the level of the individual, health system, and community.

28. LONG-TERM PREVENTIVE INTERVENTION EFFECTS ON ADOLESCENT ALCOHOL USE, ABUSE, AND DISORDER. - Michaeline Jensen, M.A., Department of Psychology, Arizona State University; N.A. Gonzales; J.J. Wong; L.E. Dumka;R. Millsap, Arizona State University (michaeline.jensen@asu.edu)

This RCT of a family-focused prevention program for Mexican American middle school students examined intervention effects on alcohol use, abuse, and disorder in late adolescence. Potential moderation of intervention effects by language of program delivery (English vs. Spanish) and baseline risk was also examined. Adolescents reporting that they had already initiated any substance use at baseline were considered high risk based on evidence that early onset is a key predictor of later substance use disorder. 498 7th grade adolescents and their primary female caregivers were randomized to receive either a 9-week, multi-component intervention or a brief workshop control group. Assessments were conducted at pre-test (T1) and five year follow-up (T2). Past year frequency of alcohol use, binge drinking, and drunkenness were included as correlated outcomes in the first model. Baseline risk significantly moderated intervention effects on all three outcomes. For alcohol use and binge drinking, the interaction was such that, among those high risk adolescents who reported having already initiated any substance use at T1, the Bridges intervention was associated with less frequent alcohol use and drunkenness at T2 while among low risk youth who had not yet initiated use at T1 the effect of the intervention was non-significant. For past year binge drinking, when the significant interaction between the intervention and T1 levels of substance use was probed, the Bridges intervention did not reach significance at any level of baseline risk, although the positive treatment effect was marginally significant for those at low risk. In the alcohol abuse disorder model, the intervention x baseline risk x language interaction was significant. Probing within the Spanish and English language groups revealed that, among the adolescents in the English group, the Bridges intervention was associated with lower odds of an alcohol abuse disorder diagnosis at all levels of baseline risk, but that intervention effects were stronger among low risk youth than among high risk youth. Among the Spanish speaking group, the positive intervention effect was stronger for high risk youth but did not reach significance at any level of baseline risk. Conclusions: These findings support the efficacy of familyfocused intervention during early adolescence in reducing alcohol use, abuse, and disorder in the long term, particularly among those adolescents at highest risk.

# 29. USING INTEGRATIVE MIXED METHODS TO EXAMINE SOCIOCULTURAL INFLUENCES OF PERCIEVED RISK IN LATINOS AT RISK OF DEVELOPING TYPE 2 DIABETES

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Hispanics have a higher prevalence of developing type 2 diabetes when compared to non-Hispanic whites (CDC, 2014). One of the many challenges in understanding this health disparity is gaining a more in-depth knowledge of the cognitive and behavioral determinants of healthy behavior change. One factor that may be involved in reducing the risk of developing type 2 diabetes is perceived risk. As a major component in the Health Belief Model, high levels of perceived risk may function as a "perceived threat" that triggers action towards preventing the onset of disease (Champion & Skinner, 2008). This secondary data analysis examined both qualitative text narrative information and numeric quantitative data regarding social support for diet and exercise. Integrative Mixed Methods methodology (Castro et al., 2010) was used to generate response codes (participants' quoted responses to the focus questions). Response codes were organized into thematic categories as identified by at least two independent coders and then thematic categories were converted into numeric thematic variables. The top down, qualitative analyses were informed by prior theory on social support and generated nine thematic categories including affiliation, appraisal, emotional, informational, instrumental, encouragement from family and friends, family traditions as a barrier to healthy behaviors, no support for diet, and no support for exercise. Latinas reported having less social support for engaging in a healthy diet and bicultural Latinos reported receiving more emotional support as compared with those who reported low levels of Acculturation. The strongest thematic category was affiliation support (defined as time or personal relations provided as support) which may highlight the foundations of family relationships and their influence on cognitive processes regarding risk. In addition, these findings suggest that social support may not be as important as other variables for influencing individuals to change their dietary and exercise behaviors when they are at risk of developing type 2 diabetes. Findings from this study can be used to influence the development of culturally based prevention interventions for Latinos at risk of developing type 2 diabetes.

30. CAUSES OF DEATH AMONG HIV-POSITIVE LATINOS WITH HISTORY OF INJECTION DRUG USE, FLORIDA, 2000-2011 - Diana M. Sheehan, Doctoral Candidate, Department of Epidemiology, Florida International University; Trepka, MJ1, Fennie, KP1, Prado, G2, Maddox, LM3, 1Florida International University, 2University of Miami, 3Florida Department of Health (dsheehan@fiu.edu)

The study objective was to examine underlying cause of death for HIV-positive Latinos a history of injection drug use. We used Florida HIV surveillance records to analyze Latinos ages 13 and older diagnosed 2000-2011. Vital status and cause of death was obtained by linkage with Florida Vital Records. Neighborhood socioeconomic status and ethnic composition were obtained from the American Community Survey and matched to each case using the zip code at time of HIV diagnosis. The Rural-Urban Commuting Area (RUCA) codes were used to determine rural/urban status of the zip code. Of 14,210 Latinos diagnosed with HIV, 1,292 (9.1%) had a reported mode of transmission of injection drug use (IDU). Of 256 deaths among Latinos with IDU, 57.0% were HIV-related, 26.2% non-HIV related medical (e.g. cancer, diabetes), 10.9% external (e.g. homicide, suicide, unintentional injuries), and 5.9% unknown. Compared to non-IDUs, cause of death for IDUs was more likely to be from external causes (p-value = 0.0051). Cause of death differed for IDUs by age (p-value 0.0021), late HIV diagnosis (p-value = 0.0036), and neighborhood unemployment (p-value 0.0126). External causes were more common among younger Latino

IDUs (16.7% for ages 20-39 vs. 5% for ages 60 and over). HIVrelated causes were more common among those diagnosed with HIV late compared with those who were not (68.1% vs. 47.9%) and among people living in neighborhoods in the highest quartile of unemployment compared with the lowest quartile (83.3% vs. 51.64%). Cause of death did not differ by year of diagnosis, sex, country of birth, or neighborhood factors of poverty, educational attainment, racial/ethnic composition, or rural/urban status. For Latino non-IDUs, cause of death differed additionally by year of diagnosis, sex, and country of birth. Our findings suggest that cause of death for HIV-positive Latinos with a history of IDU may be due to individual-level characteristics such as age, but also due to neighborhoodlevel characteristics such as unemployment. Future studies of this population should examine the role of neighborhood unemployment and other neighborhood factors on outcomes along the HIV/AIDS continuum of care.

31. CORRELATES OF TRADING SEX AMONG PERSONS ATTENDING A STUDENT RUN FREE CLINIC IN THE USMEX BORDER CITY OF TIJUANA - Milagros Becerra Ramirez, A Vargas, S Rojas, JL Burgos VD Ojeda. UCSD Global Public Health

This study describes the prevalence of factors independently associated with ever trading-sex among patients attending the HFiT-clinic located in Tijuana's red light district. We conducted descriptive and multivariate logistic regression (LR) analyses with data from a 2013 cross-sectional study. Participants were a convenience sample of 600 patients attending HFiT. Inclusion criteria: to be ≥18 years old; to seek care at HFIT; and speaking Spanish or English. Participants responded to an interviewer-administered survey on health and labor market factors. Overall, 28% (n=169) of patients were female. The median age was 42 years, 83%(n=500) participants were born outside of state, 29%(n= 178) were unemployed in the last 6 months and 57%(n=344) were ever deported from the US. The overall prevalence of ever trading sex was 22%(n=134); by gender, 36% of women reported ever trading sex compared to 17% of males. In multivariate LR model for the full sample, ever testing for HIV (Odds Ratio (OR) 2.5;95% Confidence Interval(CI):1.5, 4.1), female gender (OR: 3.1;95%CI: 1.6, 6.1), unemployed in the last 6 months (OR:2.6;95%CI:1.4, 4.8), ever injected drugs (OR:2.4,95%CI:1.4,4.0), ever experienced (OR:4.0,95%CI:2.1,7.8), ever incarcerated sex (OR:3.0;95%CI:1.5,5.8) were significantly associated with ever trading sex. With each year of increasing age. participants were less likely to report ever trading sex OR:0.96,95%CI:0.94,0.98). This study recruited a diverse population to characterize the health and social experiences of vulnerable groups. We found that trading sex was common among women as were other health-damaging situations (e.g., forced sex, injection drug use, incarceration), but we could not assess the temporality of these events. These data suggest that programs to meet the needs of persons who have experienced sexual violence, are seeking drug rehabilitation, or community integration programs are needed within the HFIT clinic's array of services and in the broader community to meet vulnerable patients' needs.

32. ENDOPLASMIC RETICULUM STRESS BIOMARKER, GRP78, DECREASES IN HIV POSITIVE DRUG USERS WITH NEUROCOGNITIVE IMPAIREMENT - Nawal Boukli, Ph.D., Associate Professor, Department of Microbiology and Immunology, Universidad Central Del Caribe (nawal.boukli@uccaribe.edu)

Due to the high prevalence of neurocognitive impairment (NCI) in HIV infected and drug abuse patients worldwide, there is an urgent need to study the synergism between these disorders and their impact on the immune response. The hypothesis of this study is that HIV infected polydrug users (PDU) have a greater impact on NCI, a negative effect on T-lymphocyte protein and proinflammatory cytokine expression. To test this hypothesis, we will 1) identify NCI in HIV+ participants with and without polydrug addiction, 2) analyze the cytokine profiling and protein expression in HIV+/HIV-PDU. NCI was measured by psychological analysis in HIV+/HIV-PDU. Alterations on protein expression were detected through a proteomic approach and cytokine profiling was achieved by means of flow cytometry. The sample population distribution was: 10 HIV+PDU+ and 10 HIV-PDU+. HIV-PDU+ participants had higher NCI and proinflammatory cytokine expression as compared to HIV+PDU+. Proteomic data showed that Endoplasmic Reticulum (ER) stress marker GRP78 was downregulated in NCI participants as compared to non NCI participants. Moreover, GRP78 expression diminished with HIV infection. Our findings showed that the downregulation of GRP78 may be a potential biomarker to identify NCI in HIV positive PDUs. This study will contribute to a deeper understanding of the cellular and molecular mechanisms linking drug addiction and HIV infection.

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National Eye Institute

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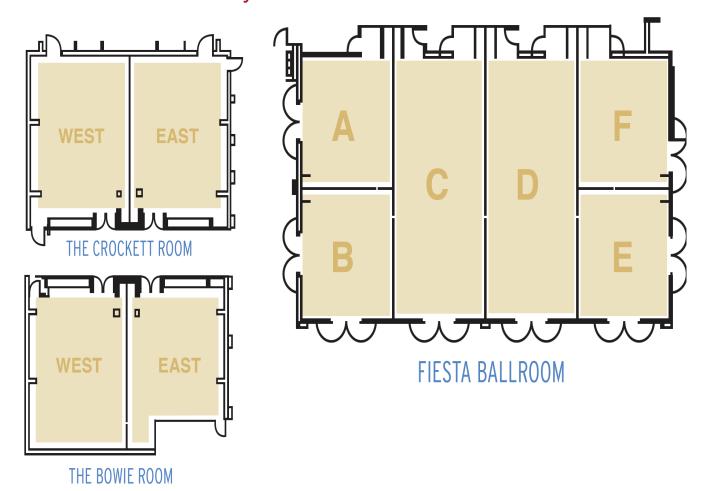
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