Society on NeurolImmune Pharmacology (SNIP)

21st Scientific Conference

Hyatt Regency, Miami, FL

April 22-25, 2015

Previous Conferences: 1993 Toronto Hilton, Canada; 1994 Breakers, Palm Beach, FL; 1995 Bristol Court, San Diego, CA; 1996 Caribe Hilton, San Juan, PR; 1997 Opryland Hotel, Nashville TN; 1998 Scottsdale Princess, Scottsdale, AR; 2000 NIH Mazur Auditorium, Bethesda MD; 2001 Emory University, Atlanta, GA; 2002 Clearwater Beach Hilton, Clear Water, FL; 2004, La Fonda Hotel, Santa Fe, NM; 2005 Clearwater Beach Hilton, Clear Water, FL; 2006 La Fonda Hotel, Santa Fe, NM; 2007 City Center Marriott Hotel, Salt Lake City, UT; 2008 Francis Marion Hotel, Charleston, SC; 2009 Pearl Plaza Howard Johnson, Wuhan, China; 2010 Manhattan Beach Marriott, Manhattan Beach, CA; 2011 Hilton Clearwater Beach Resort, Clear Water Beach, FL; 2012 Hawaii Prince Hotel, Honolulu, HI; 2013 Conrad Hilton, San Juan, PR, 2014 InterContinental Hotel New Orleans, New Orleans, LA
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## Conference Agenda

### Wednesday  
**April 22, 2015**
- Opening Reception: 10
- Poster Session 1: ECI/Pre-Doctoral Session (10)
- Abstract listing: 10-14

### Thursday  
**April 23, 2015**
- Bill Narayan Lecture: Barry T. Rouse, PhD, DSc (10)
- Presidential Symposium: HIV Eradication and Cure (10)
- Meet the Mentors: Luncheon (10)
- SNIP Council Meeting: 10
- Symposium 2: Neurodegenerative Responses to Viral Infections and Therapeutics (11)
- Symposium 3: SNIP Member Research (11)
- Poster Session 2: ECI/Post-Doctoral & General Session (11)
- Abstract listing: 11-15

### Friday  
**April 24, 2015**
- Symposium 4: Therapeutic Challenges in HIV Infection and Drug Addiction (12)
- Plenary Lecture: Thomas Hope, PhD (12)
- Early Career Investigator Training Session: Getting from Here to There (12)
- Symposium 5: Aging and Alzheimer’s in the HIV Infected Population (12)

### Saturday  
**April 25, 2015**
- Plenary Lecture: Glen Hanson, DDS, PhD (13)
- Symposium 6: Stress at the Crossroads between Immune Function and Neuropsychiatric Dysfunction (13)
- Special Symposium: Early Career Investigator Session (13)
- SNIP Business Meeting: 14
- Symposium 7: Innate Immunity and HIV/HCV Co-infection (14)
- Banquet and Awards Ceremony: 14

## List of Conference Participants  
26-33

## Hotel Floorplan  
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Acknowledgements

The Society on NeuroImmune Pharmacology expresses its deep appreciation for the contributions made by so many individuals and institutions in support of this 21st SNIP Scientific Conference in Miami, Florida. The scientific program and symposia were developed by the Meetings Committee and Symposia Chairs. Other aspects of the conference agenda were organized by the Executive Committee and local team. Special thanks go to the local SNIP-member hosts, Dr. Madhavan Nair, Dr. Michal Toborek, and Ms. Karla Munoz who were involved in every step of the planning and coordination of the meeting. We also recognize Mr. Jason Cross for his efforts in support of the 21st SNIP Conference.

Sponsors and Contributors

The Society on NeuroImmune Pharmacology (SNIP) sincerely thanks following sponsors who have generously contributed to different activities during 21st Society of NeuroImmune Pharmacology Meeting.

National Institute on Drug Abuse R13 DA023184* to Sulie Lin Chang, Seton Hall University
Support of SNIP Early Career Investigators

Miami Center for AIDS Research P30AI073961
Savita Pahwa, MD, Director, University of Miami, Miller School of Medicine
General meeting support

Institute of Neuroimmune Pharmacology, Herbert Wertheim College of Medicine, Florida International University
Graduate trainee associated expenses, support for Early Career Investigator lunch

Society for Personalized Nanomedicine (SPNM), 820 Tangier Street, Coral Gables Florida
General meeting support

University of North Dakota School of Medicine and Health Sciences
Joshua Wynne, MD, MBA, MPH
Vice President for Health Affairs and Dean, Professor of Medicine
Sponsorship of Symposium 5 – Aging and Alzheimer’s in the HIV-1 Infected Population

Ponce Research Institute, Ponce Health Sciences University
Kenira Thompson, PhD, President of Ponce Research Institute
Sponsorship of Symposium 2 – Neurodegenerative Responses to Viral Infections & Therapeutics

*Funding for this conference was made possible [in part] by R13 DA023184 from the National Institute on Drug Abuse. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.
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Omaha, NE 68198-5880
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President elect: Sanjay Maggirwar
Secretary: Michal Toborek
Treasurer: Rosemarie Booze
Past President: Howard Fox

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Anil Kumar, Chair; Sanjay Maggirwar, Howard Fox

Public Relations Committee
Sabita Roy, Chair; Phil Peterson, Clair Gaveriaux-Ruff, Howard Fox
Annual Society Awards

Each year the Society recognizes a few of its members who have exemplified unique qualities of leadership, service and/or scholarship on behalf of the Society and its mission. The following awards are bestowed annually.

Herman Friedman Founders Award
For Visionary Contributions in the Establishment and Continued Development of the Society
This award is named in honor of Herman Friedman, PhD, a man who promoted the study of drugs of abuse, infections, and immunity, promoted meetings among scientists based on this theme, and was a founding member of the Society. He passed away in 2007. This award recognizes individuals whose contribution to SNIP was visionary and served as a key to the founding of the Society and/or its continued development and perpetuation.

Distinguished Services Award
For Extraordinary Service to Society and to the Accomplishment of its Mission
The Distinguished Services Award recognizes an individual whose efforts and commitment to the society has been both consistent and exemplary over protracted years of service.

Outstanding Service And Support Award
For Extraordinary Service to Society and to the Accomplishment of its Mission
This award is given in recognition of individuals who are not necessarily investigators or members, but who have provided extraordinary service in facilitating the operation of Society initiatives. Examples would include individuals who often work “behind the scenes” to facilitate the Society by work on its publications, fundraising, and/or in the organization or conduct of meetings and symposia.

Wybran Award
For Extraordinary Contributions that Help to Integrate the Fields of NeuroImmunology, Drugs Of Abuse, and Immunity to Infection
Joseph Wybran, MD, was trained in Immunology and worked for some time in the USA before returning to his Brussels home. He was a seminal contributor through the 1970s and into the 1980s to the integration of the fields of neuroimmunology, drugs of abuse and immunity to infection. As a measure of the impact that his science had on the field of neuroimmune pharmacology, his seminal paper published in the Journal of Immunology 1979 regarding the ability of endogenous and exogenous opioids to modulate T cell rosette formation in a naloxone reversible way was the most cited research article through the early 1980s. He was killed, presumably, by terrorists reacting to his leadership and participation in Jewish causes. He was shot in his car in the parking lot of his work, October 3, 1989 in Brussels. Sadly, this tragedy occurred at the peak of Joe’s career. The Wybran Award was created to memorialize Joe’s scientific prestige in the area of neuroimmune pharmacology. It is meant, most particularly, to serve as a remembrance of his leading contributions that underpin SNIP. The Wybran Award is the highest honor bestowed by SNIP in recognition of the very best scientific contributions that have resulted in the preservation and expansion of the field of Neuroimmune Pharmacology.
Early Career Investigator Travel Award Winners 2015

In order to promote interest in the field of Neuroimmune Pharmacology and to recognize the excellent work being done by Early Career Investigators in this field, the Society provides Early Career Investigator Travel Awards (ECITA) to graduate students and post-doctorate trainees (within 5 years of Ph.D.) working with a SNIP member and seeking funds to attend the annual conference of the Society on Neuroimmune Pharmacology. For the 2015 SNIP Scientific Conference, a total of 59 abstracts were submitted. Of which 34 graduate students and 17 post-doctorate fellows were awarded. The ECITA awards were made in 4 categories: $750+registration waiver, $500+registration waiver, only registration waiver, and “certificate of excellence”. The certificate of excellence was given to the 3rd candidate of the same PI. In addition, the top 3 from each graduate student and post-doctorate fellow categories were selected for symposium presentation. It is worth noting that this is the highest number of awards given to Early Career Investigators, which suggests a growing trend of the society. The ECITA committee thanks the SNIP leadership for this.

<table>
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<th>ECITA Awardees*</th>
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<td>Cai, Y</td>
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<td>Ghorpadé, A</td>
<td>Univ. of North Texas-Health Sciences Center</td>
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<td>Juareguibery-Bravo</td>
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<td>Jones, ME</td>
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<td>Lopez, SN</td>
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<td>Nagarkatti, M</td>
<td>University of South Carolina-Columbia</td>
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The SNIP recognizes the service of ECITA committee members (Drs. Kumar (Chair), Nonnemacher, Rivera, Datta, Haorah, Thangavel, Ramirez, Booze, Wang, Tang, Royal, Meléndez, Jain, Khan, Lan, Richards, Singh, Agudelo, Dash, Silverstein, Amedee, and El-Hage), and thanks them for their wonderful job in reviewing the ECITA applications.

*ECITA Awardees are expected to attend all sessions of the conference.*
BILL NARAYAN LECTURE

Barry T. Rouse, PhD, DSc is a Distinguished Professor in Biomedical and Diagnostic Sciences at the University of Tennessee. Dr. Rouse’s research in the field of infectious disease has focused on viral immunology and immunopathology with a major emphasis on herpes simplex virus (HSV) infection in mice. In addition to devising successful vaccines, much of his work is directed at determining how HSV causes damage in critical tissues such as the eye and nervous system. His work host innate and adaptive immune mechanisms, particularly the T cells responsible for immunity as well as those involved in orchestrating tissue damage have led to breakthroughs in defining the role of several subtypes of proinflammatory T cells as well as numerous cytokines and chemokines. His group was the first to show a role of regulatory T cells (Treg) in the host response to a virus infection, including demonstration that Treg responses could act to inhibit the efficiency of immunity, but that Treg were valuable to modulate the severity of immunopathological responses, such as those that occur in the corneal stroma after HSV infection of the eye. For over 30 years, his group has has studied the important blinding lesion herpes stromal keratitis (SK) and shown how multiple events set off by ocular HSV infection culminate in SK. He has trained over 50 graduate students and post-doctoral fellows and published greater than 400 articles.

PLENARY LECTURERS

Thomas J. Hope, PhD is a Professor in Cellular and Molecular Biology in the Feinberg School of Medicine at Northwestern University. For more than a decade his laboratory has studied various aspects of HIV science taking a cell biology approach. The centerpiece of the approach is microscopic imaging, which provides important information relating to context and dynamics of biological functions. To study HIV, the Hope lab has developed a series of techniques and tools that allow the fluorescent labeling of HIV particles or viral proteins and the identification of infected cells. They can now follow virions and infected cells from the tissue culture dish to whole animal models. His group has used this cell biology approach, supplemented with molecular biology, biochemistry, and genetics to study various aspects of HIV from virus entry and assembly, to defining the earliest steps of the sexual transmission of HIV. The studies to define the mechanisms of transmission have recently redirected a large aspect of the lab to HIV prevention science, including vaccine and microbicide research.

Glen R. Hanson, DDS, PhD is a Professor of Pharmacology and Toxicology in the Interdepartmental Program in Neuroscience at the University of Utah. Dr. Hanson conducts research concerning the relationship between CNS transmitter systems such as the monoamines (e.g., dopamine and serotonin), neuropeptides (e.g., neotensin, substance P, dynorphin, and enkephalins) and the amino acid (e.g., glutamate and GABA) transmitters. His research particularly focuses on the areas of the brain involved in addiction, goal seeking, compulsive behavior, the control of mental states, and locomotion. This research helps elucidate the cause, consequences and treatment of substance abuse, psychiatric disorders and CNS degenerative diseases. In his studies he investigates psychoactive drugs such as the amphetamines, cocaine, nicotine, the antidepressants and the antipsychotic agents to help elucidate these transmitter interactions. A variety of analytical procedures are routinely employed in Dr. Hanson's laboratory including: radioimmunoassays (RIA); radioenzymatic assays; in situ hybridization for analysis of mRNA expression; receptor binding techniques; transporter activity assays; microdialysis for measuring transmitter release; and behavioral analysis employing self-administration and operant training strategies in rats.
CONFERENCE AGENDA

21st Annual Scientific Conference

April 22-25, 2015

Wednesday  April 22, 2015

SNIP committee meetings by arrangement with chairs  8am-3pm
Registration opens  3:00pm
Opening Reception and
Poster Session 1  Pre-doctoral Poster Session  5-8pm
Location: UPPER AND LOWER PROMENADE

List of Wednesday Poster Assignments Starts on Page 15.

Thursday  April 23, 2015

Continental Breakfast, Riverfront South – Lobby Level  7:00-8:00
Location: JASMINE/HIBISCUS

Welcome  7:55
Anil Kumar, PhD, University of Missouri-Kansas City (SNIP President)

Bill Narayan Lecture  8:05
Barry T. Rouse, PhD, DSc, University of Tennessee
Immunity or Tissue Damage to Virus Infections: Can We Exploit What We Know? (Introduction by Howard Fox, MD, PhD)

Presidential Symposium  9:00
HIV Eradication and Cure
Chairs: Dr. Anil Kumar, University of Missouri-Kansas City
Dr. Michal Toborek, University of Miami, Miller School of Medicine
Mario Stevenson, PhD, University of Miami, Miller School of Medicine
Obstacles to HIV-1 Eradication  9:00
Jacob Estes, PhD, Frederick National Laboratory
Utilizing Nonhuman Primate Models and Novel in vivo Tools to Understand Viral Persistence During cART  9:25

Break  9:50
Tae-Wook Chun, PhD, NIH, NIAID
HIV Reservoirs: Implications for Pathogenesis and Viral Eradication  10:05
Susana Valente, PhD, Scripps Research Institute, Florida
Targeting HIV-1 Latent Infection with a Potent Tat Inhibitor  10:30
Michal Toborek, MD, PhD, University of Miami Miller School of Medicine
HIV Trafficking into the Brain: The Blood-Brain Barrier Story  10:55

Meet the Mentors Luncheon (Location: RIVERFRONT SOUTH – LOBBY LEVEL)  11:20

SNIP Council Meeting (Location: GARDENIA)  11:20
Symposium 2

Neurodegenerative Responses to Viral Infections and Therapeutics

Chair: Vanessa Rivera Amill, PhD, Ponce Health Sciences University

David Mock, MD, University of Rochester Medical Center
Human Herpesvirus-6 Latency Transcript U94 Disrupts Key Human Neural Progenitor Functions

Monahan Valiya Veettil, PhD, Rosalind Franklin University
Glutamate Secretion and Metabotropic Glutamate Receptor 1 Expression During Kaposi’s Sarcoma-Associated Herpesvirus Infection Promotes Cell Proliferation

Paul B. Fisher, PhD, Virginia Commonwealth University
The Path to Novel Therapeutics for Neurodegeneration: Targeting the Excitatory Amino Acid Transporter-2 (EAAT2) Promoter to Regulate Glutamate Transport

Vickram Ramkumar, PhD, Southern Illinois School of Medicine
Targeting Cochlear Inflammation for the Treatment of Cisplatin-Induced Hearing Loss

Break

Symposium 3  SNIP Member Research

Chairs: Raul Gonzalez, PhD, Florida International University
        Marcus Kaul, PhD, Sanford Burnham Medical Research Institute

Vir B. Singh, PhD, University of Rochester Medical Center
Sonic Hedgehog Signaling Confers Neuroprotection in HIV-1 Infected Humanized Mice

Shaunglin Hao, PhD, University of Miami Miller School of Medicine
HSV Vector-Mediated GAD67 Suppresses Neuropathic Pain Induced by HIV gp120 Combined with ddC Through Reducing ROS in Rats

Tina Calderon, PhD, Albert Einstein College of Medicine
Dopamine Increases CD14+CD16+ Monocyte Transmigration across the Blood Brain Barrier: Implications for Substance Abuse and HIV Neuropathogenesis

Liana Asatryan, PhD, University of Southern California
Potential Role of Purinergic P2X7 Receptors in the Progression of Alcohol Induced Brain and Liver Damage

Maria Jose Miguez, MD, PhD, Florida International University
Cytokines and Alcohol Use as Possible Underlying Biological Mechanisms Associated with Racial Disparities in Cognitive Status Among HIV Infected Individuals Receiving Antiretroviral Therapy

Poster Session 2/Reception  ECI Post-doc and General Session

Location: UPPER AND LOWER PROMENADE

List of Thursday Poster Assignments Starts on Page 19.
Friday  
**April 24, 2015**  
Continental Breakfast, Riverfront South – Lobby Level  
7:00-8:00

**Location:** JASMINE/HIBISCUS

**Symposium 4**  
**Therapeutic Challenges in HIV Infection and Drug Addiction**  
Chairs: Madhavan Nair, PhD, FIU, Herbert Wertheim School of Medicine  
Savita Pahwa, MD, University of Miami Miller School of Medicine
Savita Pahwa, MD, University of Miami Miller School of Medicine  
Cocaine Abuse and HIV Infection–Double Trouble for the Immune System  
Courtney Miller, PhD, Scripps Research Institute, Florida  
Developing New Treatments to Prevent Relapse to Drug Use
Rahul Jayant, PhD, Florida International University  
Nanoengineered Sustained Drug Release to Eradicate HIV in CNS
Wolfgang Streit, PhD, University of Florida College of Medicine  
Microglial Senescence in Normal and Pathological Aging
Rafick-Pierre Sekaly, PhD, Vaccine and Gene Therapy Institute of Florida  
Systems Approaches to Exploration of the Immune Response to Vaccines and Pathogens

Break  
10:15

**Plenary Lecture**  
10:30

Thomas Hope, PhD, Northwestern University Feinberg School of Medicine  
*Characterization of the Earliest Events of Mucosal Transmission in Macaque Models*  
(Introduction by Anil Kumar, PhD)

**Early Career Investigator & Trainee Training session**  
11:30

*Getting from Here to There: Making the transition from post-doc to assistant professor and beyond.*
Organized by: Maureen Richards, PhD, Rush University  
Peter J. Gaskill, PhD, Albert Einstein College of Medicine  
*(bag lunch for participants)*

*For all others, lunch on your own, return by 1pm.*

**Symposium 5**  
1:00

*Aging and Alzheimer’s in the HIV-1 Infected Population*  
Chair: Jonathan Geiger, PhD, University of North Dakota
Ned Sacktor, MD Johns Hopkins  
HIV-Associated Neurocognitive Disorders Among Older HIV+ Individuals
Christian Achim, MD, PhD, University of California, San Diego  
Brain Amyloid and HAND in the cART Era
Xuesong Chen, PhD, University of North Dakota  
Endolysosome Involvement of HIV-1 Tat-Induced Neuronal Amyloid Beta Production
Kelly Jordan-Sciutto, PhD, University of Pennsylvania  
Mechanisms of Antiretroviral Drug-Induced Changes in Amyloid Precursor Protein Processing: Implications for HAND

End  
2:15

Afternoon free  
2:40
Saturday April 25, 2015
Continental Breakfast, Riverfront South – Lobby Level
7:00-8:00

Location: JASMINE/HIBISCUS

Plenary Lecture 2
Glen Hanson, DDS, PhD, University of Utah
Broadening the Dimension of Methamphetamine Preclinical Studies
(Introduction by Sanjay Maggeirwar, PhD)

8:00

Symposium 6
Stress at the Crossroads between Immune Function and Neuropsychiatric Dysfunction
Chair: Gretchen Neigh, PhD, Emory University
Bonnie Blomberg, PhD, University of Miami Miller School of Medicine
Positive Effects of Cognitive Behavioral Stress Management on Immunity

8:55

Jennifer Felger, PhD, Emory University
Inflammatory Cytokine Effects on Neurotransmitters, Neurocircuits, and Behavior in Depression

8:55

Break
9:20

Gretchen Neigh, PhD, Emory University
Striking a Balance: Neural and Behavioral Implications of the Interplay of Stress and Immunity in Health and Disease

9:45

Erick Tatro, PhD, University of California San Diego
Depressive Symptoms Point to New Therapeutic Targets in HIV Infection

9:55

Leah Rubin, PhD, University of Illinois at Chicago
Effects of Stress and Stress Hormones on Cognition and Brain Function in Women with HIV

10:20

Special Symposium Early Career Investigator Session
Chair: Santosh Kumar, PhD, University of Tennessee Health Science Center

Pre-doctoral
Anantha R. Nookala, B. Pharm., University of Missouri-Kansas City
HIV-1 Tat and Methamphetamine Mediated Synergistic Expression of IL-6 in Astrocytes Involves PI3KT/AKT and NFκB Signaling Pathways

11:00

Fuyyan Wang, MPH, University of Minnesota
Morphine Disrupts Gut Homeostasis and Induces Distinct Signatures of Gut Microbiome and Metabolome Partially Through the TLR2 Pathway

11:15

Summer J. Rozzi, BA, Georgetown University
HIV-1 Tat Induces Mitochondrial Dysfunction in Neurons

11:30

Post-doctoral
Yu Zhou, PhD, Temple University School of Medicine
Exosomes Mediate Cell-to-Cell Transmission of TLR3-Induced Antiviral Activity and the Involvement of Micro RNAs

12:00

Palsamy Periyasamy, PhD, University of Nebraska Medical Center
Cocaine Induces Endoplasmic Reticulum Stress-Mediated Activation of Autophagy in Astrocytes: Implications for Astrogliosis

12:15

PSS Rao, PhD, University of Tennessee Health Science Center
Chronic Effects of Alcohol and/or Antiretroviral Drugs on Monocytes/Macrophages: Potential Role of Cytochrome P450, Efflux Transporter, and Antioxidant Enzymes

12:30
SNIP Business Meeting *(bag lunch for Regular SNIP members)*
*For all others, lunch on your own, return by 2:30pm.*

Symposium 7

*Innate Immunity and HIV/HCV co-infection*

Chairs: Johnny He, PhD, University of North Texas Health Science Center  
        Mahendra Kumar, PhD, University of Miami Miller School of Medicine  
        Andrea Cox, MD, PhD, Johns Hopkins School of Medicine

HIV/HCV Co-infection: Pathogenesis and Treatment 2:30

April Thames, PhD, University of California Los Angeles  
*Neuroimaging and Neurobehavioral Correlates of HIV/HCV Co-Infection* 3:00

Wenzhe Ho, MD, MPH, Temple University  
*Innate Immunity and HIV/HCV Co-Infection* 3:20

Marianna Baum, PhD, Florida International University  
*HIV/HCV Co-Infection and Substance Abuse* 3:40

End 4:00

Banquet & Awards Ceremony 7-10

Meeting Adjourned!
LIST OF POSTER ASSIGNMENTS

WEDNESDAY, APRIL 22  List in Alphabetical Order

W1  ENHANCEMENT OF HIV-1 INTEGRATION IN CD4+ T CELLS BY COCAINE
Addai, Amma, Pandhare, J, Ph.D., Dash, CV, Ph.D.

W2  EFFECT OF METHAMPHETAMINE ON SPECTRAL BINDING AND LIGAND DOCKING OF ANTI-HIV DRUGS WITH CYP3A4
Ande, Anusha, BS, Nookala, Anantha Ra, BS, Kumar, Santosh, Ph.D., Kumar, Anil, Ph.D.

W3  A POTENTIAL GUT MICROBIOME THERAPEUTIC APPROACH FOR HIV-1+ DRUG ABUSERS
Bertrand, SJ, BS, Moran, LM, Ph.D., Harrod, SB, Ph.D., Mactutus, CF, Ph.D., Booze, RM, Ph.D.

W4  MORPHINE INDUCES SYNAPTODENDRITIC IMPAIRMENT IN CULTURED HIPPOCAMPAL NEURONS: REVERSAL WITH PLATELET-DERIVED GROWTH FACTOR
Cai, Yu, MD, Arikkath, Jyothi, Ph.D., Buch, Shilpa, Ph.D.

W5  CATHEPSIN B AND SERUM AMYLOID P COMPONENT CONTRIBUTE TO HIV-INDUCED NEURONAL APOPTOSIS
Cantres-Rosario, YM, BS, Hernandez, N, Negron, K, Plaud, M, MS, Melendez, LM, Ph.D.

W6  EFFECT OF METHAMPHETAMINE AND HIV-1 GP120 ON AUTOPHAGY IN SVGA ASTROCYTES
Cao, L, Kumar, S, Kumar, A

W7  MARIJUANA UP-REGULATES HIV REPLICATION IN MICROGLIA-LIKE CELLS AND RESTRICTS EXNEF- MODULATION OF GLIA IMMUNE FUNCTION.
Chevelon, S, BS, Diaz, P, Raymond, A, Ph.D., Yndart-Arias, A, BS, Agudelo, M, Ph.D., Nair, M, Ph.D.

W8  METH-INDUCED, TAAR1-ASSOCIATED CREB SIGNALING SERVES AS A MASTER REGULATOR FOR ASTROCYTE EAAT-2
Cisneros, IE, BS, Ghorpade, A, Ph.D.

W9  GLUTHATIONE REDUCESLYSOSOMAL DISRUPTION IN HIV INFECTED MACROPHAGES
Colon, K, BS, Cruz, E, Zenon, C, BS, Melendez, LM, Ph.D.

W10  HIV-1 TG RAT: SELECTIVE ALTERATIONS IN LOCOMOTOR ACTIVITY IN THE OPEN FIELD VS. VOLUNTARY WHEEL RUNNING
Cranston, MC, Booze, RM, Harrod, SB, Mactutus, CF

W11  ASTROCYTIC HIV-1 NEF EXPRESSION CAUSES LEARNING IMPAIRMENT AND INFLAMMATION
Cruz, M.L., BS, Cintrón, K, Isidro, R.A., BS, Hernández, S, BS, Maldonado, A, Isidro, A.A, MD, Noel, R.J., Ph.D.

W12  MARIJUANA PROMOTES HIV REPLICATION IN GLIA CELLS BUT INHIBITS HIV-EXNEF MEDIATED NEUROPATHOLOGY
Diaz, P, Chevelon, S, BS, Raymond, A, Ph.D., Yndart-Arias, A, BS, Agudelo, M, Ph.D., Nair, M, Ph.D.

W13  MARIJUANA UPREGULATES HIV REPLICATION IN ASTROCYTES AND MODULATES HIV-EXNEF ASSOCIATED NEUROPATHOLOGY
Diaz, P, Chevelon, S, BS, Raymond, A, Ph.D., Yndart-Arias, A, BS, Agudelo, M, Ph.D., Nair, M, Ph.D.

W14  USING THE LIP SCARIFICATION MODEL TO STUDY HSV-1 REPLICATION KINETICS AND THE CD8+ T-CELL RESPONSE
Egan, KPE, BS, Turner, PET, BS, Wigdahl, BW, Ph.D., Jennings, SRJ, Ph.D.
W15 CANNABIDIOL-INDUCED MYELOID-DERIVED SUPPRESSOR CELLS AMELIORATE EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS THROUGH MICRORA REGULATION Elliott, DM, Nagarkatti, P, Ph.D., Nagarkatti, M, Ph.D.

W16 THE ROLE OF P2X7R ANTAGONISM IN METH-INDUCED CPP Fernandes, N, BS, Potula, R, Ph.D.

W17 SYNAPTODENDRITIC INJURY IN HAND: ROLE OF IL1-BETA MEDIATED INDUCTION OF THE PROTEIN FERRITIN HEAVY CHAIN IN CORTICAL NEURONS Festa, L, MS, Meucci, O, MD, Ph.D.

W18 INTERFERON-GAMMA PRODUCING IMMUNE CELLS PLAY A ROLE DURING NEONATAL CENTRAL NERVOUS SYSTEM INFECTIONS Ganesan, PG, BS, O'Donnell, LOD, Ph.D.

W19 METHAMPHETAMINE SYNERGISTICALLY INTERACTS WITH HIV-1 VPR IN THE INDUCTION OF IL-6 IN ASTROCYTES Gangwani, Mohitkumar, BS, Kumar, Anil, Ph.D.

W20 PRE-CHIASMATIC SUBARACHNOID HEMORRHAGE LEADS TO TIGHT JUNCTIONS DISASSEMBLANCE IN ACUTE PHASE OF EARLY BRAIN INJURY Gendosz, D, MS, Debska, K, BS, Jedrzejowska-Szypulka, H, Ph.D., Lewin-Kowalik, J, MD, Ph.D.

W21 POTENTIATING DENDRITIC CELLS TO TARGET HYPOXIC ENVIRONMENT OF BRAIN TUMOR Ginwala, R, MS, Sagar, D, MS, Betesh, L, MS, Huang, X, Ph.D., Foss, C, Ph.D., Karakashev, S, MS, Mehta, A, Ph.D., Philip, R, Ph.D., Pomper, M, MD, Ph.D., Reginato, M, Ph.D., Khan, ZK, Ph.D., Jain, P, Ph.D.

W22 DEVISING A GLYCOANTIGEN SPECIFIC DC IMMUNOTHERAPY TO DEVELOP AN EFFICIENT ANTI-TUMOR RESPONSE IN THE HYPOXIC ENVIRONMENT OF Glioblastoma Ginwala, R, MS, Sagar, D, MS, Huang, X, Ph.D., Foss, C, Ph.D., Karakashev, S, MS, Khan, ZK, Ph.D., Philip, R, Ph.D., Pomper, M, MD, Ph.D., Reginato, M, Ph.D., Jain, P, Ph.D.

W23 HTLV-1 INFECTION AND T-CELL EXHAUSTION IN RAG1-/-γC-/- (RAG1) MOUSE MODEL Ginwala, R, MS, Sagar, D, MS, Akkina, R, Ph.D., Jacobson, S, Ph.D.

W24 INFLAMMATION-ASSOCIATED MICRORNAS INCREASE IN HIPPOCAMPAL NEURONS IN A CONTROLLED CORTICAL IMPACT MOUSE MODEL OF TRAUMATIC BRAIN INJURY Harrison, EB, Kelso, ML, Fox, HS.

W25 EFFECTS OF CB2R/GPR55 AGONIST TREATMENT ON NEURAL PROGENITOR CELL IMMUNE RESPONSES TO CHRONIC INFLAMMATION Hill, JD, Zuluaga, V, Winfield, M, Persidsky, Y, MD, Ph.D.

W26 PHYTOESTROGEN EQUOL PREVENTS HIV-1+COCaine INDUCED SYNAPTODENDRITIC INJURY VIA ESTROGEN RECEPTOR BETA MEDIATED MECHANISM Hu, G, Bertrand, SJ, BS, Askenova, MV, Ph.D., Mactutus, CF, Ph.D., Booze, RM, Ph.D.

W27 NOVEL ANTIPLATELET ACTIVITY OF MINOCYCLINE INVOLVES INHIBITION OF P38 MAPK Jackson, JW, Singh, MV, Ph.D., Davidson, GA, Schifitto, G, MD, Maggirwar, SB, Ph.D.

W28 EFFECTS OF BUPRENORPHINE ON CCL2 MEDIATED HIV INFECTED AND UNINFECTED CD14+CD16+ MONOCYTE MIGRATION IN THE CONTEXT OF NEUROAIDS Jaureguiberry-Bravo, MB, MS, Carvallo, L, Ph.D., Wilson, R, MD, Williams, D, Ph.D., Berman, JW, Ph.D.
W29 DREADD ACTIVATION OF HIPPOCAMPAL ASTROCYTES INFLUENCES CONTEXTUAL FEAR CONDITIONING
   Jones, M.E., Barrus, D, Lebonville, C.L., Lysle, D.T.

W30 HIV-1 TAT AND GP120 REGULATE ASTROCYTE TISSUE INHIBITOR OF MATRIX METALLOPROTEINASES-1 (TIMP-1)
   Joshi, C, MS, Ghorpade, A, Ph.D.

W31 HIV-TAT ALTERS TAU EXON 10 SPLICING THROUGH DYSREGULATION OF SC35
   Kadri, F, MS, Pacifici, M, Ph.D., Parker-Struckhoff, A, Ph.D., Hauser, K, Ph.D., Knapp, P, Ph.D.,
   Peruzzi, F, Ph.D.

W32 COMBINATORY PERIPHERAL AND BRAIN HUMANIZATION IN IMMUNODEFICIENT MICE
   Li, W, MD, Knibbe, J, MS, Makarov, E, BS, Wu, L, MD, Gorantla, S, Ph.D., Gendelman, HE, MD,
   Poluektova, L, MD, Ph.D.

W33 ACTIVITY OF MITOCHONDRIAL FISSION PROTEIN IS INVOLVED IN HIV GP120-INDUCED NEUROPATHIC PAIN IN RATS THROUGH SPINAL MITOCHONDRIAL SUPEROXIDE
   Liu, S, BS, Kanda, H, MD, Huang, W, MD, Ph.D., Levitt, RC, MD, Candiotti, KA, MD, Lubarsky, DA,
   MD, Hao, S, MD, Ph.D.

W34 ROLE OF ER-STRESS AND NEUROINFLAMMATION IN HUMAN ASTROCYTES TREATED WITH HIV-1 TAT AND GP120
   López, SN, Rodríguez, M, Rivera, M, Cubano, LA, Ph.D., Rios, E, Ph.D., Boukli, NM, Ph.D.

W35 SOYBEAN-DERIVED BOWMAN-BIRK INHIBITOR (BBI) INHIBITS HIV INFECTION OF HUMAN MACROPHAGES

W36 TGF-BETAR1 BLOCKER DECREASES INFLAMMATORY CYTOKINES EXPRESSION IN NEURONS EXPOSED TO ASTROCYTES EXPRESSING NEF
   Martinez-Orengo, N, BS, Chompre, G, Ph.D., Velázquez, B, BS, Noel, R, Ph.D.

W37 TIGHT JUNCTION PROTEIN EXPRESSION IN A BLOOD-BRAIN BARRIER MODEL UPON EXPOSURE TO HIV-1 TAT AND/OR MORPHINE
   Maubert, M, BS, Strazza, M, Ph.D., Pirrone, V, Ph.D., Lin, W, Ph.D., Feng, R, Ph.D., Wigdahl, B,
   Ph.D., Nonnemacher, MR, Ph.D.

W38 PLANT-BASED PRODUCT APIGENIN ATTENUATES EAE SEVERITY THROUGH MODULATION OF IMMUNE CELL FUNCTION.
   McTish, E, BS, Ginwala, R., MS, Sagar, D., MS, Raman, C., Ph.D., Khan, Z.K., Ph.D., Jain, P., Ph.D.

W39 BRAIN INJURY INDUCES NEUROINFLAMMATION IN THE NUCLEUS ACCUMBENS THAT COINCIDES WITH ENHANCED ADDICTION-LIKE BEHAVIOR IN ADOLESCENT MICE
   Merkel, SF, MS, Tallarida, CS, BS, Razmpour, R, BS, Lutton, EM, BS, Persidsky, Y, MD, Ph.D.,
   Rawls, SM, Ph.D., Ramirez, SH, Ph.D.

W40 MORPHINE UPREGULATES FERRITIN HEAVY CHAIN IN PRIMARY INHIBITORY NEURONS IN A µOR/G PROTEIN DEPENDENT MANNER
   Nash, B. S., BS, Pitcher, J. H., MD, Ph.D., Meucci, O., MD, Ph.D.

W41 TRAFFICKING OF CONVENTIONAL DENDRITIC CELLS (DCS) INTO THE CENTRAL NERVOUS SYSTEM IN RESPONSE TO SIV AND MORPHINE CREATING VIRAL RESERVOIR IN FOLLICULAR DCs WITHIN CERVICAL LYMPH NODES OF RHESUS MACAQUES
   Nehra, AP., Hollenbach, R., Sagar, D., Ph.D., Callen, S., Ph.D., Honghong, Y., Ph.D., Buch, S., Ph.D.,
   Khan, ZK., Ph.D., Byrareddy, S., Ph.D., Jain, P., Ph.D.
W42 HIV-1 TAT AND METHAMPHETAMINE MEDIATED SYNERGISTIC EXPRESSION OF IL-6 IN ASTROCYTES INVOLVES PI3K/AKT AND NF-κB SIGNALING PATHWAYS
Nookala, Anantha Ra, BS, Kumar, Anil, Ph.D.

W43 DIFFERENTIAL EFFECT OF HUMAN DOPAMINE TRANSPORTER SITE-DIRECTED MUTATIONS ON HIV-1 TAT-INDUCED INHIBITION OF DOPAMINE TRANSPORT
Quizon, PM, Sun, WL, Yuan, Y, Midde, NM, Huang, X, Zhan, CG, Zhu, J

W44 EFFECT OF NAPHTHALENE, AN IMPORTANT CIGARETTE SMOKE CONSTITUENT, ON CYTOCHROME P450 AND OXIDATIVE STRESS PATHWAYS IN U937 MONOCYTIC CELLS: IMPLICATIONS WITH HIV PATHOGENESIS
Rahman, MA, MS, Midde, NM, Ph.D., Rao, PSS, Ph.D., Kumar, S, Ph.D.

W45 EXPOSURE TO PHENANTHRENE, AN IMPORTANT CONSTITUENT OF TOBACCO, AND POSSIBLE ROLE OF CYTOCHROME P450 AND OXIDATIVE STRESS IN MONOCYTIC CELLS: IMPLICATIONS FOR HIV PATHOGENESIS
Ranjit, S, MS, Midde, NM, Ph.D., Rao, PSS, Ph.D., Kumar, S, Ph.D.

W46 ASTROCYTIC HIV-1 TAT PROTEIN CAUSES INFLAMMATION IN PERIPHERAL ORGANS
Rivera, J, MS, Cruz, M.L., BS, Chompré, G, Ph.D., Isidro, A.A., MD, Noel, R.J., Ph.D.

W47 GRP78 POTENTIAL MARKER OF NEUROCOGNITIVE IMPAIRMENT IN HIV INFECTED POLYDRUG USERS
Rodriguez-Valentin, M, Lopez, SN, Rivera, M, Narvaez, K, Cubano, LA, Rios-Olivares, E, Boukli, NM

W48 HIV-1 TAT INDUCES MITOCHONDRIAL DYSFUNCTION IN NEURONS
Rozzi, S.J., BS, Avdoshina, V, MD, Ph.D., Mocchetti, I, Ph.D.

W49 ANTIBODY BLOCKING OF CLEC12A DELAYS THE COURSE AND ATTENUATES EAE SEVERITY BY IMPAIRING MYELOID CELL CNS INFILTRATION: A POTENTIAL NEW THERAPY FOR MULTIPLE SCLEROSIS
Sagar, D, MS, Singh, NP, Ph.D., Huang, X, Ph.D., Ginwala, R, MS, Philip, R, Ph.D., Nagarkatti, M, Ph.D., Nagarkatti, P, Ph.D., Khan, ZK, Ph.D., Jain, P, Ph.D.

W50 IN VIVO IMMUNOGENICITY OF TAX (11-19) EPITOPE IN HLA-A2/DTR TRANSGENIC MICE: IMPLICATION FOR DENDRITIC CELL-BASED ANTI-HTLV-1 VACCINE.
Sagar, D., MS, Masih, Shet, Ph.D., Schell, T., Ph.D., Jacobson, S., Ph.D., Comber, J.D., Ph.D., Philip, R., Ph.D., Wigdahl, B., Ph.D., Jain, P., Ph.D., Khan, Z.K., Ph.D.

W51 MARIJUANA THC ATTENUATES ALLOGENEIC HOST-VERSUS-GRAFT RESPONSE AND SKIN ALLOGRAFT TRANSPLANTS THROUGH INDUCTION OF MDSCS
Sido, JM, BS, Nagarkatti, PS, Ph.D., Nagarkatti, M, Ph.D.

W52 POTENTIAL ROLE OF CYTOCHROME P450 AND OXIDATIVE STRESS PATHWAYS IN ALCOHOL-MEDIATED HIV PATHOGENESIS: OBSERVED EFFECTS IN PLASMA, MONOCYTES, AND EXOSOMES.
Sinha, N, BS, Ande, A, BS, Rao, PSS, Ph.D., McArthur, C, MD, Ph.D., Kumar, A, Ph.D., Kumar, S, Ph.D.

W53 SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS) IN THE HIV-1 LTR CORRELATE WITH CLINICAL DISEASE PARAMETERS
Sullivan, NT, BS, Pirrone, V, Ph.D., Nonnemacher, MR, Ph.D., Dampier, W, Ph.D., Aiamkitsumrit, B, Ph.D., Williams, J, BS, Shah, S, Ph.D., Passic, S, MS, Blakey, B, BS, Zhong, W, BS, Moldover, B, Ph.D., Feng, R, Ph.D., Jacobson, JM, MD, Wigdahl, B, Ph.D.
W54 HIV INFECTION AND/OR HEROIN USE DYSREGULATE THE PLASMA EXOSOME MIRNA EXPRESSION
Sun, L, MS, Zhou, Y, Ph.D., Wang, X, Ph.D., Li, J.L, Ph.D., Zhou, L, Ph.D., Sang, M, Ph.D., Zhuang, K, Ph.D., Xiao, QH, BS, Ho, WZ, MD

W55 POST-TRANSCRIPTIONAL REGULATION OF ASTROCYTE-TISSUE INHIBITOR METALLOPROTEINASE-1 (TIMP-1) IN HAND
Thete, M, MS, Ghorpade, A, PhD

W56 ROLE OF AUTOPHAGY PATHWAYS IN THE NEUROPATHOGENESIS OF HIV-1 CLADE B/C AND THE EXACERBATING EFFECTS OF DRUG OF ABUSE
Tiwari, S, MS, Nair, M, Ph.D., El-Hage, N, Ph.D.

W57 MORPHINE DISRUPTS GUT HOMEOSTASIS AND INDUCES DISTINCT SIGNATURES OF GUT MICROBIOME AND METABOLOME PARTIALLY THROUGH THE TLR2 PATHWAY
Wang, Fuyuan, Meng, J, Chen, C, Roy, S

W58 BRAIN-SPECIFIC GLUTAMINASE C OVEREXPRESSION INDUCES NEUROINFLAMMATION AND LEARNING IMPAIRMENT IN MICE
Wang, Y, Li, Y, Huang, Y, Zheng, J

W59 CORTICAL DYSFUNCTION IN HIV-1 TRANSGENIC RATS: EFFECTS OF COCAINE SELF-ADMINISTRATION
Wayman, W.N., BS, Chen, L, Ph.D., Hu, X.T., MD, Ph.D., Napier, T.C., Ph.D.

W60 SELENIUM SUPPLEMENTATION ATTENUATES EARLY EVENTS INVOLVED IN TUMOR CELL EXTRAVASATION INTO THE BRAIN BY MODULATING ADHESIVE PROPERTIES OF THE BRAIN VASCULAR ENDOTHELIUM
Wrobel, JK, MS, Wolff, G, Ph.D., Xiao, R, Ph.D., Power, R, Ph.D., Toborek, M, MD, Ph.D.

W61 MICROVESICLES MEDIATE GLUTAMINASE RELEASE IN HIV-1-INFECTED MACROPHAGES: IMPLICATION FOR HIV-1-ASSOCIATED NEUROCOGNITIVE DISORDERS (HAND)
Wu, B, MD, Huang, Y, MD, Ph.D., Braun, A, BS, Zhao, L, Ph.D., Zheng, J, MD, Ph.D.

W62 ACTIVATION OF MICROGLIA NLRP3 INFLAMMASOME UNDERLIES METHAMPHETAMINE-INDUCED NEUROINFLAMMATION
Xu, E, MD, Liu, J, MD, Ph.D., Liu, H, MD, Xiong, H, MD, Ph.D.

W63 TNFα INDUCES PAIN-LIKE BEHAVIOR AND INCREASES SPINAL P-CREB AND P-CEBPα IN RATS
Yi, HY, BS, Huang, W, MD, Ph.D., Liu, C-H, Ph.D., Kanda, H, MD, Liu, S, BS, Levitt, RC, MD, Candioti, KA, MD, Lubarsky, DA, MD, Hao, S, Ph.D.

W64 EFFECTS OF 3-N-BUTYLPHTHALIDE (NBP) ON THE EXPRESSION OF BAX, CASPASE-8 AND TH IN THE SUBSTANTI NIGRA OF PD RATS
Zhao, J, MD, Liu, YL, Zhang, XP, Liang, YC

THURSDAY, APRIL 23
List in Alphabetical Order
*abstract will be presented as talk in Symposium 3, April 23, 3:30pm

T1 EX-VIVO AND IN-VITRO EVIDENCE OF EPIGENETIC MECHANISMS OF ALCOHOL ABUSE
Agudelo, M., Ph.D., Figueroa, G., BS, Muñoz , K., MS, Casteleiro, G., Nair, M.P., Ph.D.

T2 GENE EXPRESSION CHANGES ASSOCIATED WITH HIV-INDUCED NUCLEAR TRANSLLOCATION OF AMYLOID BETA IN BRAIN ENDOTHELIUM
Andras, IE, Rampersaud, E, Eum, SY, Toborek, M
T3 BRAIN ENDOTHELIAL DERIVED EXTRACELLULAR MICROVESICLES (EMVS) AS BIOMARKERS OF BBB REMODELING DURING NEUROINFLAMMATION: IMPLICATIONS FOR CEREBROVASCULAR INJURY IN SUBSTANCE ABUSE
Andrews, AM, Ph.D., Merkel, SF, MS, Lutton, EM, BS, Razmpour, R, BS, Ramirez, SH, Ph.D.

T3* POTENTIAL ROLE OF PURINERGIC P2X7 RECEPTORS IN THE PROGRESSION OF ALCOHOL INDUCED BRAIN AND LIVER DAMAGE
Asatryan, L, Ph.D., Freire, D, BS, Jayne, J, BS, Tsukamoto, H, Ph.D., Davies, DL, Ph.D., Asatryan, L, Ph.D.

T4 METHAMPHETAMINE TREATMENT AND HIV-1 INFECTION DYSREGULATE SYNAPTIC PLASTICITY IN SKMNC NEURONAL CELLS
Atluri, VSR, Ph.D., Hernandez, O, BS, Hidalgo, M, BS, Kurapati, KRV, Ph.D., Thangavel, S, Ph.D., Pilakka-Kanthikeel, S, Ph.D., Sagar, V, Ph.D., Yndart, A, BS, Nair, M, Ph.D.

T5 DYSREGULATED IL12 EXPRESSION IN THE PERIPHERAL CIRCULATION OF ISCHEMIC STROKE PATIENTS IS REGULATED BY MULTIPLE EPIGENETIC MECHANISMS.
Bam, M, Ph.D., Yang, X, Ph.D., Nagarkatti, P, Ph.D., Nagarkatti, M, Ph.D.

T6 MORPHINE INDUCED BILE ACID IMBALANCE LEADS TO GUT BARRIER COMPROMISE AND SYSTEMIC INFLAMMATION.DESPITE BEING PREDOMINANT DRUGS OF CHOICE FOR ANTI-NOCICEPTION, MORPHINE AND ITS PHARMACOLOGICAL DERIVATIVES RESULT IN SEVERE CO-MORBIDITIES STUDIED IN NUMEROUS
Banerjee, S, Ph.D., Sindberg, G, Ph.D., Wang, F, MS, Meng, J, Ph.D., Sharma, U, Ph.D., Dalluge, J, Ph.D., Roy, S, Ph.D.

T7 DYSREGULATION OF ER STRESS AND AUTOPHAGIC RESPONSES BY THE ANTI-RETROVIRAL DRUG EFAVIRENZ.
Bertrand, L, Ph.D., Toborek, M.J., MD, Ph.D.

T8 HIV+ APOE4 CARRIERS ARE AT RISK FOR NEUROCOGNITIVE IMPAIRMENT DUE TO GREATER DISEASE SEVERITY AND CSF INFLAMMATION
Briones, MS, Ph.D., Thames, AD, Ph.D., Panos, SE, Magpantay, L, Singer, EJ, Martinez-Maza, O, Hinkin, CH, Levine, AJ

T8* DOPAMINE INCREASES CD14+CD16+ MONOCYTE TRANSMIGRATION ACROSS THE BLOOD BRAIN BARRIER: IMPLICATIONS FOR SUBSTANCE ABUSE AND HIV NEUROPATHOGENESIS
Calderon, TM, Ph.D., Williams, DW, Ph.D., Lopez, L, Eugenin, EA, Ph.D., Gaskill, PJ, Ph.D., Anastos, K, MD, Morgello, S, MD, Berman, JW, Ph.D.

T9 OCCLUDIN REGULATES GLUCOSE UPTAKE AND EPIGENETICALLY REGULATES INFLAMMATORY RESPONSE IN BBB PERICYTES
Castro, V, MD, Ph.D., Lombardi, J, Hee, J, Luethen, M, BS, Toborek, M, MD, Ph.D.

T10 COCAINE SELF-ADMINISTRATION BY HIV-1 TRANSGENIC RATS POTENTIATES THE PATHOPHYSIOLOGY IN THE NUCLEUS ACCUMBENS CORE INDUCED BY COCAINE OR THE GENOTYPE ALONE
Chen, L, Ph.D., Wayman, W.N., BS, Hu, X.T., MD, Ph.D., Napier, T.C., Ph.D.

T11 ENHANCED AUTOPHAGY OF PULMONARY ENDOTHELIAL CELLS ON EXPOSURE TO HIV-TAT AND MORPHINE: ROLE IN HRPAAH ASSOCIATED PULMONARY VASCULAR REMODELING
Dalvi, P, Ph.D., Allen, J, BS, O’Brien Ladner, A, MD, Dhillon, NK, Ph.D.

T12 LONGITUDINAL SURVEILLANCE SEQUENCING REVEALS VARIABILITY DESPITE UNDETECTABLE VIRAL LOADS
Dampier, W, Ph.D., Nonnemacher, MR, Ph.D., Pirrone, V, Ph.D., Aiamkitsumrit, B, Ph.D., Parikh, N, Ph.D., Zhong, W, BS, Kercher, K, MS, Passic, S, MS, Williams, JW, BS, Jacobson, JM, MD, Wigdahl, B, Ph.D.

T13 METHAMPHETAMINE DECREASES VOLTAGE-GATED POTASSIUM CURRENTS IN PRIMARY HUMAN FETAL ASTROCYTES
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