

# Society on NeuroImmune Pharmacology (SNIP)



## 19<sup>th</sup> Scientific Conference

**Conrad San Juan Condado Plaza  
San Juan, PR**

**April 3-6, 2013**

**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

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# Twenty Years of SNIP

By Bob Donahoe

**A BRIEF HISTORY:** In San Juan we proudly celebrate twenty years of the Society on NeuroImmune Pharmacology (SNIP). The first Conference that led to the formation of SNIP was held in Toronto, in 1993. It was initially conceptualized and organized at a meeting of the Committee (now College) on Problems of Drug Dependence (CPDD) in Keystone, CO, in 1992.

CPDD had been sponsoring posters and symposia on immunopharmacology (IP) since 1984. By the 1992 meeting, interest in IP had grown tremendously and for the first time CPDD scheduled two symposia on the topic. Attendance approached 90 scientists. Upon exiting the second symposium, excitement among attendees was palpable. Animatedly, Dr. Burt Sharp began chatting up the idea: “*We need to hold our own meetings.*” That evening, in John Madden’s condo, a working group (Drs. Burt Sharp, John Madden, Bob Donahoe, Marty Adler, Toby Eisenstein, Tom Rogers, Tom Klein and Jean Bidlack) met to effect such an effort. The proposal evolved to organize a satellite meeting the following year with CPDD in Toronto. Marty Adler, being the Executive Secretary of CPDD, spearheaded the joint-meeting arrangements. John Madden and Burt Sharp, working with guidance from Dr. Charles Sharp from the NIDA program office, obtained a NIDA-sponsored R13 Grant to help support this first ‘SNIP’ meeting, and especially to support expenses of jury-selected young investigator travel awardees (YITAs) to the meeting.

Several subsequent satellite conferences were held with CPDD and one with Neuroscience. In 2000, ‘SNIP’s’ first ‘independent’ meeting was held at NIH. The high attendance there encouraged talk among the working group and other ‘regulars’ to consider forming, “*Our own society.*” In the fall of 2000, Bob Donahoe organized a meeting to initiate a new society in the office of Burt Sharp at the University of Tennessee, College of Medicine, in Memphis. Attending were Bob, Burt, John Madden and Rick Weber (*photo below*). With communicated input from the working group, they set the groundwork for a society—choosing the SNIP name by a vote of the principals involved, which included, Phil Peterson, Tom Klein, Tom Rogers, Jean Bidlack and Toby Eisenstein. Interim officers were chosen. Corporate papers were filed and tax-exempt status obtained. An R13 grant application was funded to hold the first official SNIP conference at Emory University in Atlanta, in 2001. There, the first society officers were elected. Notably, the SNIP Treasury was initially financed through the generous personal contributions of a group of 40 Charter Members, to whom all SNIP members are indebted.



[An in-depth history of SNIP is at: [www.s-nip.org/conferences/history](http://www.s-nip.org/conferences/history).]

**SNIP CHARTER MEMBERS:** Martin Adler, Barbara Bayer, Jean Bidlack, Guy Cabral, Linda Chang, Sulie Chang, Paul Cheney, Ronald Chuang, Robert Donahoe, Toby Eisenstein, Howard Fox, Herman Friedman, Clair Gaveriaux-Ruff, Karl Goodkin, Steve Henriksen, John Holliday, Thomas Jerrells, Norbert Kaminski, Steve Keller, Tom Klein, Mahendra Kumar, Donald Lysle, John Madden, Fred Marsteller, Bonnie Miller, Tom Molitor, Madhaven Nair, Avindra Nath, Phillip Peterson, Fernando Renaud, Thomas Rogers, Sabita Roy, Walter Royal, Burt Sharp, Charles Sharp, Pravin Singhal, Mohan Sopori, George Stefano, Richard Weber, James Zadina

## Acknowledgements

The Society on NeuroImmune Pharmacology expresses its deep appreciation for the contributions made by so many individuals and institutions in support of this 19<sup>th</sup> SNIP Scientific Conference in San Juan, Puerto Rico. The scientific program was developed by the Ad Hoc Meetings Committee chaired by Sabita Roy, Phil Peterson, and Shilpa Buch. Special thanks go to the Meeting Organizer, Bob Donahoe, and to the local organizing committee: Loyda Melendez and Richard Noel (co-chairs) and members Vanessa Rivera, Valerie Wojna, and Annabell Segarra.

## Sponsors and Contributors

The Society on NeuroImmune Pharmacology (SNIP) sincerely thanks following sponsors who have generously contributed to different activities during 19<sup>th</sup> Society of NeuroImmune Pharmacology Meeting.

1. **National Institute on Drug Abuse\*** \$35,001  
To provide the Early Career Investigator Traveling Awards and partially support the programs for the Early Career Investigators.
2. **National Institute on Alcohol and Alcoholism** \$15,000  
To support Symposium #1 (Neuroimmune Activation Contributes to Addiction Neurobiology) and Travel Scholarship to support young investigators involved in alcohol research.
3. **National Institute of Mental Health** \$7000  
Partial sponsorship of Symposium #6: (Neuropathology of HIV-1 in an Aging Population)
4. **Department of Surgery-Basic and Translation Division, University of Minnesota Medical School** \$6000  
Partial sponsorship of Reception
5. **Institute of Neuroimmune Pharmacology and Center for Personalized Nano Medicine, HW College of Medicine, FIU** \$5000  
Graduate trainee associated expenses, partial sponsorship of Early Career Investigator Lunch
6. **Dr. Brian Wigdahl, Drexel University** \$5,000  
Partial sponsorship of Early Career Investigator Lunch
7. **Dr. Pravin Singhal** \$3,000  
Early Career Investigator Travel Award
8. **Drs. Howard Fox /Shilpa Buch** \$5,000  
Bill Narayan Memorial Lecture
9. **Drs. Tom Molitor /Sabita Roy** \$2,500  
Grants Writing Workshop Lunch
10. **Dr. Jose Lasalde**, Vice President for Research & Technology, University of Puerto Rico \$2,000  
Program Book Printing
11. **Dr. Kenira Thompson**, Dean for Research, Ponce School of Medicine \$1,000  
Partial sponsorship of Early Career Investigator Lunch

\*The 2013 meeting was partially sponsored by the R13 DA023184 conference award to Sulie L. Chang, Institute of NeuroImmune Pharmacology at Seton Hall University

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Great Neck, NY 11021



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Sabita Roy, Chair; Guy Cabral, Howard Fox

**Public Relations Committee**

Sabita Roy, Chair; Bob Donahoe, 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 2013

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 2013 SNIP Scientific Conference, a total of 66 abstracts were submitted. Of which 22 graduate students and 13 post-doctorate fellows were awarded. Of these 35 awardees, 9 awards were conferred to students and post-doctorate fellows working in alcohol-related research and these awards were sponsored by NIAAA. The ECITA awards were made in 3 categories: \$750+registration waiver, \$500+registration waiver, and \$500. In addition, 6 students who were among the top candidates were awarded with "Certificate for Excellence". However, they were not given travel awards because they were the 3<sup>rd</sup> candidates from the same mentor. Finally, the top 3 from each graduate student post-doctorate fellow categories were selected for symposium presentation.

<b>ECITA Awardees</b>	<b>Mentor</b>	<b>University</b>
<b>Pre-Doctoral</b>		
Amma, AB	Dash, CV	Meharry Medical College
Bertrand, SJ	Booze, RM	University of South Carolina
Cao, L	Kumar, A	University of Missouri- Kansas City
Chen, Q	Zheng, JC	University of Nebraska Medical Center
Cisneros, I	Ghorpade, A	University of North Texas Health Science Center
Coley, JS	Berman, JW	Albert Einstein College of Medicine
Festa, L	Meucci, O	Drexel University College of Medicine
Gangwani, MR	Kumar, A	University of Missouri- Kansas City
Liu, X	Kumar, A	University of Missouri- Kansas City
Loucil, R	Noel, Jr, RJ	Ponce School of Medicine and Health Sciences
Mamik, MK	Ghorpade, A	University of North Texas Health Science Center
Meng, J	Roy, S	Veterans Affairs Medical Center
Moran, LM	Mactutus, CF	University of South Carolina
Sen, S	Amini, S	Temple University School of Medicine
Shah, A	Kumar, A	University of Missouri- Kansas City
Sindberg, GM	Roy, S	University of Minnesota
Strazza, M	Nonnemacher, M	Drexel University College of Medicine
Vartak, N	Ghorpade, A	University of North Texas Health Science Center
Wang, Y	Zheng, JC	University of Nebraska Medical Center
Williams, DW	Berman, JW	Albert Einstein College of Medicine
Yang, L	Buch, S	University of Nebraska Medical Center
Zhou, Y	Ho, WZ	Temple University School of Medicine
<b>Post-Doctoral</b>		
Ashutosh, F	Ghorpade, A	UNT Health Science Center
Castro, V	Toborek, M	University of Miami
Kiebal, M	Maggirwar, SB	University of Rochester
Lan, X	Singhal, PC	Feinstein Institute for Medical Research
Ma, J	Roy, S	University of Minnesota
Mantri, SK	Dash, CV	Meharry Medical College



Pilakka-Kanthikeel, S	Nair, M	Florida International University
Wang, YZ	Ho, WZ	Temple University School of Medicine
Zhao, L	Zheng, JC	University of Nebraska Medical Center

**ECITA-alcohol  
Awardees**

**Mentor**

**University**

**Pre-Doctoral**

Ande, A	Kumar, S	University of Missouri- Kansas City
Ferguson, LB	Harris, RA	University of Texas, Austin
Franklin, T	Sarkar, DK	Rutgers University
Gofman, L	Potula, R	Temple University School of Medicine
Parikh, N	Wigdahl, B	Drexel University College of Medicine
Teng, S	Molina, P	Louisiana State University Health Sciences Center

**Post-Doctoral**

Agudelo, M	Nair, M	Florida International University
Bethel-Brown, C	Buch, S	University of Nebraska Medical Center
Vetreno, RP	Crew, FT	University of North Carolina, Chaper Hill

The SNIP recognizes the service of ECITA committee members (Drs. S. Kumar (Chair), Booze, Datta, Ghorpade, Haorah, Ho, Kiertscher, Meléndez, Molitor, Nonnemacher, Royal, Tang, Thangavel, and Rivera), and thank them for their wonderful job in reviewing the ECITA applications. Professor Arthur Falek, of Emory University, who passed away in 2005, was widely known for his mentorship. In 1982, he was the first recipient of a NIDA grant in the field of NeuroImmune Pharmacology. He held grants in this area of research for 20 more years, until his retirement in 2002. He was an early and ever enthusiastic promotor of SNIP and Early Career Investigators. Accordingly, the ECITA awards are tendered in his honor.

## The Society Welcomes our Plenary Speakers

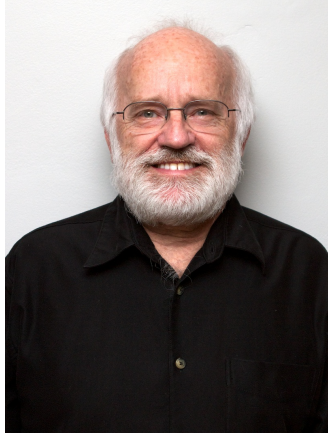


Dr. Benjamin K. Chen is an Associate Professor in the Division of Infectious Diseases, Department of Medicine at the Icahn School of Medicine at Mount Sinai. Dr. Chen began his training in HIV virology with Nobel Laureate David Baltimore and then with Dr. Peter S. Kim and has maintained an interest in the HIV-host cell interactions for 20 years. The work from his laboratory has advanced our understanding of how the assembly and production of HIV in T cells is coordinated by the cell-cell contacts and how these contacts called virological synapses (VS) enhance infection. Using recombinant infectious forms of HIV to facilitate measurement of the steps of the virus life cycle his laboratory revealed that cell adhesion induced by the viral Env protein induces the active recruitment of the assembling viral components to the cell-cell junction. Studies from the lab have

also visualized a endocytic entry pathway that is mediated by the VS, measured the resistance of the VS to neutralization by patient sera, and revealed the simultaneous transmission of multiple genetic copies of HIV by VS. Current studies in the laboratory have focused on the role of cell-to-cell infection in a parenteral model of HIV transmission in humanized mice supported by an Avant Garde Award from the NIH. The goal of these studies is to visualize VS in vivo and to characterize how they participate in viral spread in vivo. He is also a Burroughs Wellcome Investigator in the Pathogenesis of Infectious Diseases. Overall, the studies in the laboratory examine how immune cells actively participate in HIV dissemination and examine a novel paradigm that may help us to understand many aspects of HIV pathogenesis.

Dr. Kanneganti is an Associate Member in the Department of Immunology at St. Jude Children's Research Hospital. Her laboratory focuses on studying the molecular mechanisms of host defense and inflammation. Dr. Kanneganti has published over 100 papers, many in prestigious journals including Nature, Cancer Cell, Nature Immunology, Nature Reviews Immunology and Immunity. She has made seminal contributions to our understanding of how the innate immune system recognizes and responds to pathogens and how mutations in these sensing systems and signaling affect the development of infectious, inflammatory, and autoimmune diseases in humans. Dr. Kanneganti regularly presents her findings at national and international symposia and at major research institutions throughout the world. She has consistently been active in postdoctoral and graduate student training. Web page: [www.stjude.org/kanneganti](http://www.stjude.org/kanneganti)





Jon Lindstrom. Department of Neuroscience, Medical School of the University of Pennsylvania. Research in my laboratory involves nicotinic acetylcholine receptors (AChRs) of both muscles and nerves. We discovered that myasthenia gravis (MG) is caused by an antibody-mediated autoimmune response to muscle  $\alpha 1^*$  AChRs, developed experimental autoimmune MG (EAMG) as an animal model of MG, developed an immunodiagnostic assay for MG, discovered the main immunogenic region (MIR) and determined its structure, and have developed a specific immunosuppressive therapy for EAMG. We made monoclonal antibodies as model autoantibodies and as probes for characterizing neuronal AChRs. We are characterizing the structures and functional properties of human neuronal AChR subtypes expressed in *Xenopus* oocytes and transfected cell lines. We found that nicotine acts as a pharmacological chaperone to promote assembly of  $\alpha 4\beta 2^*$  AChRs. Subunit concatamers proved especially useful for expressing complex AChR subtypes important for addiction to nicotine such as  $(\alpha 6\beta 2)(\alpha 4\beta 2)\beta 3$ . We are collaborating in development of positive allosteric modulators selective for  $\alpha 5^*$  AChRs for smoking cessation therapy.

Tariq M. Rana, Ph.D., is Professor and Director of the RNA Biology Program at Sanford-Burnham. Dr. Rana's laboratory has discovered fundamental structural and functional features of small RNAs required for gene silencing. In addition, his laboratory has uncovered mechanisms involving small RNAs and RNA-protein complexes in regulating host-pathogen interactions. Dr. Rana received his Ph.D. from the University of California at Davis and he was an American Cancer Society fellow at the University of California at Berkeley. He is a recipient of numerous awards including a Research Career Award from the National Institutes of Health in 1996. Dr. Rana has advised a number of biotechnology companies and has served as a member of several Scientific Advisory Boards. Prior to joining the faculty of the Sanford-Burnham, Dr. Rana was a Professor of Biochemistry and Molecular Pharmacology and Founding Director of a Program in Chemical Biology at the University of Massachusetts Medical School. Dr. Rana joined Sanford-Burnham in 2008 to establish the Program for RNA Biology.



Prof. dr. Bert 't Hart (59) is a medical biologist with a PhD in immunology. As postdoc I led a research group in ethnopharmacology, working on the immunologically active principles of medicinal plants. In 1989 I joined the Dutch Primate Centre/BPRC to work on the development and research of non-human primate models for immune-mediated inflammatory disorders. My initial research was in rheumatoid arthritis, but in later years I switched to multiple sclerosis and Parkinson's disease. Currently I am chairman of the Immunobiology department of the Biomedical Primate Research Centre and hold the chair in Neuroimmunology at the University Medical Centre in Groningen.



## **SNIP Administrative Meetings**

### **Tuesday, April 2, 2013**

- |                      |   |
|----------------------|---|
| <b>1:00pm</b>        | <b>Opening of Conference Office (Almendros, Ocean Tower, Mezzanine level)</b>     |
| <b>3:00 – 4:00pm</b> | <b>SNIP Executive Committee Meeting (President's Suite)</b>                       |
| <b>4:00 -6:30pm</b>  | <b>SNIP Meetings /Program Committee (Horizonte, Ocean Tower, Mezzanine level)</b> |
| <b>7:30pm</b>        | <b>SNIP Council Dinner</b>  |

### **Wednesday, April 3, 2013**

**All business meetings on April 3 will take place in Boardroom II, Lagoon Tower, Mezzanine level.**

- |                        |   |
|------------------------|---|
| <b>8:00 – 8:20am</b>   | <b>Awards Committee</b>   |
| <b>8:20 – 9:05am</b>   | <b>ECITA Committee</b>  |
| <b>9:05 – 9:50am</b>   | <b>Communications Committee</b>   |
| <b>9:50 – 10:20am</b>  | <b>Membership Committee</b>   |
| <b>10:20 – 11:00am</b> | <b>Finance Committee</b>  |
| <b>11:00 – 11:45am</b> | <b>Elections Committee</b>  |
| <b>12:00 – 1:00pm</b>  | <b>Lunch</b>  |
| <b>1:00 – 3:00pm</b>   | <b>Council Meeting and Committee Reports</b>                                  |
| <b>2:00pm</b>          | <b>Conference Office Opens (Almendros, Ocean Tower, Mezzanine level)</b>      |
| <b>3:00-6:00pm</b>     | <b>Registration Opens (Ponce de Leon Foyer, Ocean Tower, Mezzanine level)</b> |

# Scientific Sessions

**Wednesday, April 3, 2013**

**5:00-8:00pm**

## **Opening Reception and Poster Session 1**

*(Brisas del Mar, Ocean Tower, Lobby level)*

*Please have posters numbered 1-40 mounted by 4:45pm.*

*Posters W-1 through W-40 to be presented from 5-6:20pm, and then removed.*

*Posters W-41 through W-80 to be mounted from 6:20-6:40 and presented until 8pm.*

**Sponsored by the Department of Surgery, University of Minnesota**

## **Poster titles listed by assigned Poster Board Numbers**

*(see Journal of Neuroimmune Pharmacology for complete abstracts)*

### **EARLY CAREER INVESTIGATOR POSTER SESSION TITLES**

- W-1. COCAINE ENHANCES HIV-1 INTEGRATION IN CD4+ T CELLS BY MODULATING THE EPIGENETIC DNA SIGNATURES OF HOST GENOME. Amma, A.B. 1, Pandhare, J 1, Mantri, C.K. 1, Dash, CV 1; 1Center for AIDS Health Disparities Research, Department of Biochemistry and Cancer Biology, Meharry Medical College, Nashville, TN 37208.
- W-2. ROLE OF CYTOCHROME P450 (CYP) IN SMOKING AND ALCOHOL MEDIATED OXIDATIVE STRESS: IMPLICATIONS WITH HIV-1 PATHOGENESIS. Ande, A 1, Sinha, N 1, McArthur, C 2, Kumar, S 1; 1Division of Pharmacology & Toxicology, UMKC School of Pharmacy, Kansas, MO 641082Department of Oral Biology, UMKC School of Dentistry, Kansas, MO 64108.
- W-3. HIV-1 LTR SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS) THAT CORRELATE WITH CLINICAL DISEASE PARAMETERS ARE FOUND IN BOTH THE PERIPHERAL BLOOD AND BRAIN COMPARTMENTS. Antell, G 1, Nonnemacher, M 2, Pirrone, V 2, Dampier, W 2, Aiamkitsumrit, B 2, Williams, J 2, Shah, S 2, Wojno, A 2, Passic, S 2, Blakey, B 2, Zhong, W 2, Moldover, B 4, Feng, R 5, Downie, D 3, Lewis, S 3, Jacobson, J 3, Wigdahl, B 2; 1School of Biomedical Engineering and Health Sciences, Drexel University, Philadelphia, PA 191022Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA 191023Division of Infectious Disease and HIV Medicine, Department of Medicine, Drexel University College of Medicine, Philadelphia, PA 191024B-Tech Consulting, LTD, B-Tech Consulting, LTD, Philadelphia, PA 191305Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA 19104.
- W-4. EFFECT OF METHAMPHETAMINE AND GP120 ON AUTOPHAGY IN SVGA ASTROCYTES. Cao, L 1, Kumar, S 1, Kumar, A 1; 1Division of Pharmacology and Toxicology, School of Pharmacy, University of Missouri-Kansas City, Kansas City, MO 64108.
- W-5. UPREGULATION OF THE ALPHA7-NICOTINIC ACETYLCHOLINE RECEPTOR IN A TRANSGENIC MOUSE MODEL THAT EXPRESSES THE HIV COAT PROTEIN GP120. Capó-Vélez, C.M. 1, Morales, B 1, Melendez, R. 2, Lasalde-Dominicci, J.A. 1; 1Department of Biology, University of Puerto Rico, Rio Piedras Campus, San Juan, PR 009312Department of Anatomy and Neurobiology, University of Puerto Rico, Medical Sciences Campus, San Juan, 00936.
- W-6. CXCR7, A NOVEL RECEPTOR OF CXCL12, MEDIATES MIGRATION AND SIGNALING OF NEURAL PROGENITOR CELLS IN VITRO. Chen, Q 1, Li, Y 1, Song, A 1, Zhu, B 1, Peng, H 1, Huang, Y 1, Tian, C 1, Xu, D 1, Zheng, J. C 1; 1Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198.
- W-7. TRANSIENT METHAMPHETAMINE-ASSOCIATED HYPERTHERMIA MODULATES ASTROCYTE TRACE AMINE ASSOCIATED RECEPTOR-1 (TAAR1) ACTIVATION AND EXACERBATES HIV-1-INDUCED NEURODEGENERATION. Cisneros, IE 1, Ghorpade, A 1; 1Cell Biology and Anatomy, University of North Texas Health Science Center at Fort Worth, Fort Worth, TX 76107.
- W-8. DOPAMINE MEDIATED CHANGES IN THE BLOOD BRAIN BARRIER AND NEUROINFLAMMATION IN THE CONTEXT OF CNS HIV INFECTION AND SUBSTANCE ABUSE. Coley, JS1, Calderon, TM1, Lopez, L1, Berman, JW1; 1Dept. of Pathology, Albert Einstein College of Medicine, Bronx, NY 10461.

- W-9. EFFECT OF GP120 IN CATHEPSIN B AND CYSTATIN B EXPRESSION IN HIV PATIENTS. Colon, K 1, Delgado, G 2, Melendez, LM 1; 1Microbiology Department, University of Puerto Rico - Medical Sciences Campus, San Juan, PR 009352Biology Department, University of Puerto Rico - Rio Piedras Campus, San Juan, PR 00931.
- W-10. HIV-1 ENVELOPE GLYCOPROTEIN GP120 TRIGGERS A SENESENCE PHENOTYPE IN CULTURED HUMAN ASTROCYTES. Crowe, EP 1, Sell, C 1, Torres, C 1; 1Dept. of Pathology and Laboratory Medicine, Drexel University College of Medicine, Philadelphia, PA 19102.
- W-11. DISRUPTION OF THE CHOLINERGIC ANTI-INFLAMMATORY RESPONSE IN THE HIV CONTEXT. Delgado-Velez , M 1, Baez-Pagan , C 1, Gerena, Y 6, Quesada , O 3, Santiago-Perez , L 1, Wojna , V 5, Melendez, L 4, Silva, W 7, Lasalde-Dominicci, J 1; 1Dept of Biology, Dept of Chemistry, Dept of Physical Sciences, University of Puerto Rico, Río Piedras Campus, San Juan, PR 009314; Dept of Microbiology and Medical Zoology, Internal Medicine, Dept of Pharmaceutical Sciences, School of Pharmacy, Dept of Physiology, Univ of Puerto Rico, Medical Sciences Campus, San Juan, PR 00936.
- W-12. GENOMIC SIGNATURE OF PPAR AGONISTS IN BRAIN AND LIVER: ROLE IN ALCOHOL CONSUMPTION. Ferguson, LB 1, Blednov, YA 1, Harris, RA 1; 1Waggoner Center for Alcohol and Addiction Research, University of Texas at Austin, Austin, TX 78712.
- W-13. INVOLVEMENT OF GLIA AND CYTOKINES IN HIV-INDUCED CHANGES OF FERRITIN HEAVY CHAIN PROTEIN EXPRESSION IN CORTICAL NEURONS. Festa, L 1, Meucci, O 1; 1Department of Pharmacology and Physiology, Drexel University College of Medicine, Philadelphia, PA 19102.
- W-14. NEONATAL ETHANOL EXPOSURE CAUSES LONG-TERM ALTERATION IN MICROGLIA SENSITIVITY AND RESPONSE TO STRESS. Franklin, T 1, Sarkar, D.K. 1; 1Endocrine Program, Rutgers University, New Brunswick, NJ 08901.
- W-15. HIV-1 VIRAL PROTEIN R (VPR) INDUCES THE PRODUCTION OF PRO-INFLAMMATORY CYTOKINES IL-6, IL -8 AND RANTES IN THE ASTROCYTES VIA DIFFERENT MECHANISMS. Gangwani, MR 1, Kumar, A 1; 1Division of Pharmacology and Toxicology, University of Missouri Kansas City, Kansas City, MO 64108.
- W-16. HIV PROTEASE INHIBITORS PROMOTE AMYLOIDOGENIC APP PROCESSING VIA PHOSPHO-EIF2A-DEPENDENT TRANSLATIONAL UPREGULATION OF BACE1. Gannon, P 1, Akay, C 1, Yee, A 1, Odeleye, A 1, Clements, J 2, Mankowski, J 2, Zink, C 2, Jordan-Sciutto, K 1; 1School of Dental Medicine, University of Pennsylvania, Philadelphia, PA 191042School of Medicine, Johns Hopkins University, Baltimore, MD 21205.
- W-17. ALCOHOL ALTERS MICROGLIA FUNCTION THROUGH P2X4 RECEPTOR SIGNALING. Gofman, L 1, Cenna, JM 1, Potula, R 1; 1Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.
- W-18. COCAINE REGULATES NEURONAL EXPRESSION OF RXR- $\gamma$ : IMPLICATIONS FOR RETINOIC ACID RESPONSIVE GENES AND NEURONAL PLASTICITY. Kovalevich, J 1, Corley, G 1, Ozdemir, AY 1, Yen, W 1, Kim, JK 1, Rawls, S 1, Langford, D 1; 1Neuroscience, Temple University School of Medicine, Philadelphia, PA 19140.
- W-19. FUNCTIONAL ADAPTATION OF NMDA RECEPTORS FOLLOWING HIV-1 TAT-INDUCED POTENTIATION. Krogh, KA1, Thayer, SA1 ; Department of Pharmacology, University of Minnesota Medical School, Minneapolis, MN 55455
- W-20. HEDGEHOG PATHWAY PLAYS A VITAL ROLE IN HIV-ASSOCIATED NEPHROPATHY. Lan, X 1, Cheng, K 1, Plagov, A 1, Chandel, N 1, Rai, P 1, Malhotra, A 1, Singhal, PC 1; 1Renal Molecular Research Laboratory, Feinstein Institute for Medical Research, Great Neck, NY 11021.
- W-21. THE ROLE OF PI3K/AKT/CREB-1 AND JAK/STAT SIGNALING IN HIV-1 NEF-MEDIATED INCREASE OF IL-6 IN ASTROCYTES. Liu, X 1, Kumar, A 1; 1Pharmacology & Toxicology, School of Pharmacy, University of Missouri-Kansas City, Kansas City, MO 64108.
- W-22. PROTEOMIC FINGERPRINTS OF PRIMARY HUMAN ASTROCYTES TREATED WITH HIV-1 CLADE B AND C PROTEINS: ROLES OF ENDOPLASMIC RETICULUM STRESS IN NEURO-AIDS. López, SN, Rodríguez, M., Amadeo, W, Cubano, L, Alves, J, Boukli, N; Department of Microbiology and Immunology, Biomedical Proteomic Facility, Universidad Central del Caribe, Bayamón, PR 00960.

- W-23. HIV-1 NEF EXPRESSION IN RAT HIPPOCAMPUS INCREASES SMALL INTESTINE PERMEABILITY AND DECREASES OCCLUDIN TIGHT JUNCTION PROTEIN. Loucil, R 1, Isidro, RA 2, Chompre, G 1, Hernandez, S 2, Cruz, ML 2, Isidro, AA 2, Appleyard, CB 2, Noel, Jr, RJ 1; 1Department of Biochemistry, Ponce School of Medicine and Health Sciences, Ponce, PR 007162Department of Physiology and Pharmacology, Ponce School of Medicine and Health Sciences, Ponce, PR 00716.
- W-24. CHEMOKINE CXCL8 MODULATES HIV-1 REPLICATION IN HUMAN MONOCYTE-DERIVED MACROPHAGES. Mamik, MK 1, Borgmann, K 1, Ghorpade, A 1; 1Cell Biology and Anatomy, University of North Texas Health Science Center, Fort Worth, TX 76107.
- W-25. DISTINCT INDUCTION OF IL-17 ISOFORMS BY MORPHINE CONTRIBUTES TO DIFFERENTIAL BARRIER DISRUPTION IN THE SMALL INTESTINE AND COLON. Meng, J 1, Ma, J 2, Banerjee, S 2, Wang, F 1, Charboneau, R 3, Roy, S 2; 1Department of Pharmacology, University of Minnesota, Minneapolis, MN 554552Department of Surgery, University of Minnesota, Minneapolis, MN 554553Department of Surgery, Veterans Affairs Medical Center, Minneapolis, MN 55417.
- W-26. DEFICITS IN ATTENTION, A CORE COMPONENT OF EXECUTIVE FUNCTION, IN FEMALE HIV-1 TRANSGENIC RATS. Moran, L.M. 1, Booze, R.M. 1, Mactutus, C.F. 1; 1Behavioral Neuroscience Program, Department of Psychology, University of South Carolina, Columbia, SC 29208.
- W-27. INDUCTION OF IL-6 AND IL-8 CYTOKINES BY HIV-1 TAT INVOLVES A COMMON TRANSCRIPTION FACTOR NUCLEAR FACTOR-KAPPA B BUT DIFFERENT SIGNALING PATHWAYS. Nookala, A, Kumar, A; Division Pharmacology & Toxicology, UMKC School of Pharmacy, Kansas city, MO 64108.
- W-28. COCAINE ALTERS CYTOKINE SIGNATURES WITHIN PATIENTS IN THE DREXELMED HIV/AIDS GENETIC ANALYSIS COHORT. Parikh, N 1, Williams, J 1, Pirrone, V 1, Nonnemacher, M 1, Aiamkitsumrit, B 1, Passic, S 1, Blakey, B 1, Frantz, B 1, Moldover, B 2, Feng, R 3, Downie, D 4, Lewis, S 4, Jacobson, JM 4, Wigdahl, B 1; 1Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA 191022B-Tech Consulting, Ltd, B-Tech Consulting, Ltd, Philadelphia, PA 191303Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA 191044Medicine/Division of Infectious Disease and HIV Medicine, Drexel University College of Medicine, Philadelphia, PA 19102.
- W-29. CCR5-EXPRESSING NEURONS AND GLIA AS SITES OF CONVERGENCE FOR HIV-1 TAT AND OPIOID INTERACTIONS. Podhaizer, EM 1, Zhang, Y 2, Knapp, PE 3, Hauser, KF 1; 1Dept. of Pharmacology & Toxicology; 2Dept. of Medicinal Chemistry; 3Dept. of Anatomy & Neurobiology, Virginia Commonwealth University, Richmond, VA 23298.
- W-30. PROTEOMICS APPROACH OF ALCOHOL INDUCED ER STRESS IN HUMAN MICROGLIA CELLS. Ricardo J Carrero, Yanilda Ramos, Sheila Lopez, Janaina Alves, Hiram Escobales, Madeline Rodríguez, and Nawal Boukli. Universidad Central del Caribe, Bayamón, PR 00960.
- W-31. ROLE OF DEPRESSION ON PRO-INFLAMMATORY AND OXIDATIVE STRESS RESPONSES IN HIV-INFECTED PUERTO RICANS. Rivera-Rivera Y, Toro-Rodriguez V, Cappas-Ortiz N, Rivera-Amill V; Dept. of Microbiology, and Deptt of Clinical Psychology Ponce School of Medicine & Health Sciences, Ponce, PR 00716.
- W-32. HIV-1 CLADE B ACTIVATES PRO-APOPTOTIC PROTEIN SIGNATURES IN HUMAN MICROGLIA. Rodriguez, M 1, Escobales, H 1, Lopez, SN 1, Alves, JM 1, Cubano, L 1, Boukli, NM 1; 1Biomedical Proteomic Facility, Universidad Central del Caribe, Bayamon, PR 00956.
- W-33. POLY(ADP-RIBOSE) POLYMERASE-1 (PARP) INHIBITION DECREASES HIV-1 REPLICATION IN PRIMARY HUMAN MONOCYTE-DERIVED MACROPHAGES (MDM). Rom , S 1, Reichenbach, NL 1, Persidsky, Y 1; 1Department of Pathology & Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19046.
- W-34. PACAP27 IS A NEW NEUROPROTECTIVE COMPOUND AGAINST TAT-MEDIATED NEUROTOXICITY. Rozzi SJ, Borelli G, Ryan K, Steiner J, Palchik G, Avdoshina V, Mocchetti I; Department of Neuroscience, and the Department of Pharmacology & Physiology, Georgetown University, Washington, DC 20007; National Institute of Neurological Disorders and Stroke (NINDS), National Institutes of Health, Bethesda, MD 20892.
- W-35. ANTI-APOPTOTIC ROLE OF HEXOKINASE IN HIV-1 INFECTED MACROPHAGES. Sen , S 1, Datta, PK 2, Khalili, K 2, Amini, S 1; 1Biology , Temple University , Philadelphia , PA 191212Neuroscience/CNAC, Temple University School of Medicine, Philadelphia , PA 19140.

- W-36. INFECTION WITH ECOHIV, A NOVEL MURINE MODEL OF HIV, AND MORPHINE COMPROMISE GUT BARRIER FUNCTION AND BACTERIAL CLEARANCE. Sindberg, GM 1, Sharma, U 2, Meng, J 3, Banerjee, S 2, Volsky, D 4, Molitor, T 5, Roy, S 2; 1Comparative and Molecular Biosciences, University of Minnesota, Saint Paul, MN 551082Department of Surgery, University of Minnesota, Minneapolis, MN 554553Department of Pharmacology, University of Minnesota, Minneapolis, MN 554554Molecular Virology Division, St. Luke's-Roosevelt Hospital Center/Columbia University, New York, NY 100195Department of Veterinary Population Medicine, University of Minnesota, Saint Paul, MN 55108.
- W-37. GLIAL P2X4 RECEPTORS MEDIATE OPIOID AND HIV-1 ASSOCIATED NEURODEGENERATION. Sorrell, ME 1, Zou, S 2, Knapp, PE 2, Hauser, KF 1; 1Department of Pharmacology and Toxicology; 2Department of Anatomy and Neurobiology, Virginia Commonwealth University, Richmond, VA 23298.
- W-38. STRUCTURAL AND FUNCTIONAL ALTERATIONS IN AN IN VITRO MODEL OF THE BLOOD-BRAIN BARRIER FOLLOWING PROLONGED EXPOSURE TO MORPHINE. Strazza, M 1, Pirrone, V 1, Lin, W 2, Feng, R 2, Wigdahl, B 1, Nonnemacher, M 1; 1Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA 191022 Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA 19104.
- W-39. ACUTE ALCOHOL INTOXICATION IS ASSOCIATED WITH SUSTAINED NEUROINFLAMMATION WITHOUT EXACERBATION OF EARLY NEUROBEHAVIORAL OUTCOMES POST TRAUMATIC BRAIN INJURY. Teng, S 1, Molina, P 1; 1Department of Physiology, Louisiana State University Health Sciences Center, New Orleans, LA 70112.
- W-40. NEUROTOXIC EFFECTS OF HIV-1 VPR EXPRESSION IN ASTROCYTES . Torres, L. and Noel Jr., RJ; Biochemistry Dept, Ponce School of Medicine & Health Sciences, Ponce, PR 00732.
- W-41. ASTROCYTE-ELEVATED GENE-1 PROTECTS HUMAN ASTROCYTES FROM OXIDATIVE STRESS-INDUCED DNA DAMAGE: A POTENTIAL SURVIVAL MECHANISM IN HAND. Vartak-Sharma, N 1, Ghorpade, A 1; 1Department of Cell Biology and Anatomy, University of North Texas Health Science Center, Fort Worth, TX 76107.
- W-42. EFFECT OF HIV-1 GP120 ON THE GLUTAMIC ACID METABOLIC SYSTEM IN HUMAN ASTROCYTES. Vázquez-Santiago, FJ 1, Meléndez, LM 2, Wojna , V 3, Noel, RJ 1, Rivera-Amill, V 1; 1Microbiology Department, Ponce School of Medicine and Health Sciences, Ponce, PR 007162Microbiology and Medical Zoology Department, University of Puerto Rico Medical Science Campus, San Juan, PR 009363Specialized Neuroscience Research Program, University of Puerto Rico Medical Science Campus, San Juan , PR 00936.
- W-43. COCAINE SELF-ADMINISTRATION POTENTIATES EXCITATORY RESPONSES OF RAT CORTICAL NEURONS TO HIV-1 TAT PROTEIN. Wayman, WN 1, Napier, TC 1, Hu, X-T 1; 1Department of Pharmacology and the Center for Compulsive Behavior and Addiction, Rush University Medical Center, Chicago, IL 60612.
- W-44. THE EFFECTS OF DOPAMINE ON CD14+CD16+ TRANSMIGRATION ACROSS THE HUMAN BLOOD BRAIN BARRIER AND ITS ROLE IN THE PATHOGENESIS OF NEUROAIDS. Williams, DW 1, Calderon, TC 1, Lopez, L 1, Morgello, S 2, Berman, JW 1; 1Pathology, Albert Einstein College of Medicine, Bronx, NY 104612Neurology, Neuroscience, Pathology, Mount Sinai Medical Center, New York, NY 10029.
- W-45. ANKYRIN-RICH MEMBRANE SPANNING PROTEIN (ARMS) PLAYS A CRUCIAL ROLE IN HIV-1 TAT-INDUCED ACTIVATION OF MICROGLIAL CELLS. Wooten, AK 1, Jackson, J 1, Kiebala, M 1, Maggirwar, SB 1; 1Department of Microbiology and Immunology, University of Rochester School of Medicine and Dentistry, Rochester, NY 14642.
- W-46. SELENOGLYCOPROTEINS SUPPRESS ADHESION OF BREAST CANCER CELLS TO HUMAN BRAIN ENDOTHELIUM VIA A MECHANISM INVOLVING NF-KB. Wrobel JK, Choi JJ, Xiao R, Kwiatkowski S, Power R, Toborek M; Department of Biochemistry and Molecular Biology, University of Miami Miller School of Medicine, Miami, FL 33136; Nutrigenomics Research Centre, Alltech, Nicholasville, KY 40356.
- W-47. SIGMA-1 RECEPTOR PROTECTS AGAINST HIV TAT-MEDIATED ER STRESS RESPONSE IN ASTROCYTE:IMPLICATION FOR HAND. Yang, L 1, Mori, M 2, Buch, S 1; 11Dept. of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, omaha, NE 681982Dept. of Toxicology, School of Pharmacy and Pharmaceutical Sciences, Hoshi University, Tokyo, 142-8501.



- W-48. EFFECT OF COCAINE IN THE PLASMA OF HIV SEROPOSITIVE WOMEN BY 18O ISOTOPIC LABELLING. Zenon, F 1, Cruz, A 1, Melendez, L 1, Segarra, A 1, Jorge, I 2, Vazquez, J 2, Serrano, H 1; 1University of Puerto Rico Medical Sciences Campus, School of Medicine/UPR-RCM, San Juan, PR 009362Cardiovascular Proteomics Laboratory, Centro Nacional de Investigaciones Cardiovasculares/Centro de Biología Molecular "Severo Ochoa", Madrid, E-28029.
- W-49. THE INTERACTIVE ROLE OF ALCOHOL AND CANNABINOIDS ON DENDRITIC CELL FUNCTION. Agudelo, M, Yndart, A, Morrison, M, Muñoz, K, Raymond, A, Nair, MP; 1Dept. of Immunology/Institute of NeuroImmune Pharmacology, Herbert Wertheim College of Medicine, Miami, FL 33190.
- W-50. CALPAIN-MEDIATED DEGRADATION OF MDMX/MDM4 EXPRESSION CONTRIBUTES TO HIV-INDUCED NEURONAL DAMAGE. Akay, C 1, Colacurcio, D 1, Daniels, M 1, Kolson, DL 2, Jordan-Sciutto, KL 1; 1Department of Pathology, School of Dental Medicine, 2Department of Neurology, The Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA 19104.
- W-51. HIV-1 CLADE B EXPRESS NEURONAL APOPTOTIC PROTEOMIC FINGERPRINTS. Alves, JM, Carrero, RJ, Rodriguez, M, Lopez, SN, Cubano, L, Boukli, NM; Biomedical Proteomics Facility - Department of Microbiology and Immunology, Universidad Central del Caribe, Bayamón, PR 00960.
- W-52. MORPHINE IMPAIRS LYSOSOMAL ACIDIFICATION LEADING TO COMPROMISED BACTERIAL KILLING. Anand, V 1, Koodie, L 2, Banerjee, S 1, Sindberg, G 3, Ma, J 1, Roy, S 1; 1Division of BTR/ Department of Surgery, 2Dentistry, Pharmacology, University of Minnesota, Minneapolis, MN 554553; Department of Veterinary Biosciences, University of Minnesota, Saint Paul, MN 55108.
- W-53. EFFECT OF NICOTINE ON SYNAPTIC PLASTICITY GENE EXPRESSION IN HIV-1 INFECTION: IMPLICATION IN HAND. Atluri, VSR 1, Sudheesh, PK 1, Samikkannu, T 1, Vijaya, P 1, Ding, H 1, Raymond, AD 1, Nair, M 1; 1Department of Immunology, Institute of NeuroImmune Pharmacology, Herbert Wertheim College of Medicine, Florida International University, Miami, FL 33199.
- W-54. CHARACTERIZATION OF SINGLE NUCLEOTIDE POLYMORPHISMS OF THE HUMAN ALPHA7 NICOTINIC RECEPTOR REVEALS ALTERATIONS IN FUNCTIONALITY AND RESPONSE TO BUPROPION: POTENTIAL IMPLICATIONS TO THE PATHOGENESIS AND TREATMENT OF HIV-ASSOCIATED NEUROCOGNITIVE DISORDERS. Báez-Pagán, C.A. 1, Aviles-Pagán, E. 1, Aponte-Santiago, N.A. 1, Holder-Viera, M. 1, Lasalde-Dominicci, J.A. 1; 1Department of Biology, University of Puerto Rico, Río Piedras Campus, San Juan, PR 00931.
- W-55. ROLE OF HIV TAT PROTEIN IN THE REGULATION OF GENE EXPRESSION IN MACROPHAGE. POSSIBLE MECHANISM IN DRUG ABUSERS. Carvallo, L 1, Fajardo, J.E 2, Berman, JW 1; 1Department of Pathology, Albert Einstein College of Medicine, Bronx, NY 104612Department of Systems and Computational Biology, Albert Einstein College of Medicine, Bronx, NY 104613Department of Microbiology and Immunology, Albert Einstein College of Medicine, Bronx, NY 10461.
- W-56. POTENTIAL PROTECTIVE ROLE OF THE TIGHT JUNCTION PROTEIN OCCLUDIN AGAINST HIV-1 INFECTION OF PERICYTES. Castro, V 1, Lüthen, M 2, Toborek, M 1; 1Biochemistry and Molecular Biology, University of Miami. Miller School of Medicine, Miami, FL 33136 2Department of Biology, Freie Universität-Berlin, Berlin, 14195.
- W-57. REPEATED COCAINE ADMINISTRATION EXACERBATED HIV-1 TAT-MEDIATED CORTICAL EXCITABILITY VIA OVER-ACTIVATING L-TYPE CALCIUM CHANNELS. Chen, L 1, Napier, TC 1, Hu, X-T 1; 1Dept. of Pharmacology and Center for Compulsive Behavior and Addiction, Rush University Medical Center, Chicago, IL 60612.
- W-58. HUMAN PRIMARY ASTROCYTES EXPRESS CD99: POTENTIAL ROLE IN HIV BRAIN INFECTION. Daep, CA 1, Eugenin, E 1; 1Public Health Research Institute, University of Medicine and Dentistry of New Jersey, Newark, NJ 07107.
- W-59. MECHANISM FOR ACCELERATED NEUROPATHOGENESIS IN DRUG ABUSE/HIV MODEL: ROLE OF SYSTEMIC INFECTION AND TOLL -LIKE RECEPTORS. Dutta, Raini 1, Roy, Sabita 1; 1Department of Surgery, University of Minnesota, Minneapolis, MN 55455.
- W-60. HIV-1 VIRAL PROTEINS DISRUPT NEURON AUTOPHAGY FUNCTION AND AUTOPHAGOSOME FORMATION: MECHANISMS IN HIV-ASSOCIATED NEUROCOGNITIVE DISORDERS. Fields, J 1, Dumaop, W 1, Adame, A 1, Masliah, E 1; 1Department of Pathology, University of San Diego, California, La Jolla, CA 92093.

- W-61. PLATELET ACTIVATION BY COCAINE IN HIV PATIENTS INVOLVES IKK. Kiebal, M 1, Singh, M 1, Maggirwar, SB 1; 1Department of Microbiology and Immunology, University of Rochester School of Medicine and Dentistry, Rochester, NY 14642.
- W-62. IN VITRO AND IN VIVO EXPOSURE TO COCAINE ENHANCES HIV INFECTION IN QUIESCENT T CELLS. Kim SG1, Dixit D2, Jung J2, Rovner RJ2, Zack JA1,2, Baldwin GC1, Vatakis DN1; 1Department of Medicine, Division of Hematology and Oncology, 2Department of Microbiology, Immunology and Molecular Genetics, David Geffen School of Medicine at UCLA, Los Angeles, CA 90095.
- W-63. MORPHINE DISRUPTS LEUKOCYTE ENDOTHELIAL TRANS-CELLULAR MIGRATION. Koodie, L 1, Roy, S 2; 1Dentistry, Pharmacology, University of Minnesota, School of Medicine, Minneapolis, MN 55455 2Division of Basic Translational Research, Department of Surgery, University of Minnesota, Minneapolis, MN 55446.
- W-64. METHAMPHETAMINE MODULATES ANTI-HIV-1 MIRNA EXPRESSION TO REGULATE HIV-1 REPLICATION IN CD4+ T CELLS AND MACROPHAGES. Mantri, CK 1, Velamarti Mantri, J 1, Pandhare Dash, J 1, Dash, CV 1; 1CAHDR, Meharry Medical College, Nashville, TN 37208.
- W-65. INSOMNIA CORRELATES WITH IMMUNE DYSREGULATION BUT NOT WITH HCT/OX SYSTEM DYSFUNCTION IN HIV-INFECTED WOMEN. Menéndez-Delmestre, R 1, López, R 2, Matos, M 1, Skolasky, RL 3, Vélez, J 1, Ginebra, T 1, Wojna, V 1; 1NeuroAIDS Program, 2Division of Neurology, Univ. of Puerto Rico, Medical Sciences Campus, San Juan, PR 00935 3Department of Orthopaedics, Johns Hopkins University, Baltimore, MD 21287.
- W-66. T-CELL RECONSTITUTION DURING MURINE ACQUIRED IMMUNODEFICIENCY SYNDROME (MAIDS) PRODUCES NEUROINFLAMMATION AND MORTALITY IN ANIMALS HARBORING OPPORTUNISTIC VIRAL BRAIN INFECTION. Mutnal, MB 1, Schachtele, SJ 1, Hu, S 1, Lokensgard, JR 1; 1Neuroimmunology Laboratory, Center for Infectious Diseases and Microbiology Translational Research, University of Minnesota, Minneapolis, MN 55455.
- W-67. CLASS I HISTONE DEACETYLASES AND A LYSINE-SPECIFIC HISTONE METHYLTRANSFERASE, SUV39H1, PROMOTE HIV LATENCY IN ASTROCYTES. Narasipura, SD 1, Min, S 1, Al-Harathi, L 1; 1Department of Immunology/Microbiology, Rush University, Chicago, IL 60612.
- W-68. METHAMPHETAMINE-INDUCED INCREASES IN PLASMA AMMONIA PRODUCE NEUROINFLAMMATION AND BLOOD-BRAIN BARRIER DISRUPTION. Northrop, NA1, Halpin, LE1, Yamamoto, BK 1; 1Dept. of Neurosciences, Univ. of Toledo College of Medicine, Toledo, OH 43614.
- W-69. NEUROINFLAMMATION IN YOUNG ADULT HIV-1 TRANSGENIC RATS. Persons, AL 1, Chen, L 1, Wayman, WN 1, Hu, X-T 1, Napier, TC 1; 1Department of Pharmacology and Center for Compulsive Behavior and Addiction, Rush University Medical Center, Chicago, IL 60612.
- W-70. COCAINE DOWNREGULATES SAHMD1 EXPRESSION AND FACILITATES HIV-1 INFECTION IN ASTROCYTES. Pilakka-Kanthikeel, S 1, Raymond, S 1, Atluri, V 1, Nair, M 1; 1Department of Immunology, Institute of NeuroImmune Pharmacology, Herbert Wertheim College of Medicine, Florida International University, Miami, FL 33199.
- W-71. MEDIUM SPINY NEURONS IN THE NUCLEUS ACCUMBENS OF HIV-1 TRANSGENIC FEMALE RATS: DIOLISTIC ASSESSMENT OF SYNAPTODENDRITIC ALTERATIONS. Roscoe, RF, Mactutus, CF, Booze, RM; Dept. of Psychology, University of South Carolina, Columbia, SC 29208.
- W-72. PERSISTENT CD8 T CELLS HINDERS NEUROGENESIS DURING HERPES SIMPLEX ENCEPHALITIS. Rotschafer, JH 1, Roach, E 1, Cheeran, MCJ 1; 1Veterinary Population Medicine, University of Minnesota, St. Paul, MN 55108.
- W-73. MAGNETIC-NANOFORMULATION OF M-OPIOID RECEPTOR ANTAGONIST (CTOP) FOR TREATMENT OF MORPHINE-INDUCED NEUROPATHOGENESIS IN HIV INFECTION. Sagar, Vidya 1, Pilakka-Kanthikeel, S. K. 1, Priestap, H. 2, Atluri, V. S. R. 1, Ding, H. 1, Guduru, R. 1, Khizroev, S. 1, Nair, M.P. 1; 1Center for Personalized Nanomedicine, Institute of NeuroImmune Pharmacology, Department of Immunology, Herbert Wertheim College of Medicine, Florida International University, Miami, FL 33199 2Department of Biological Sciences, College of Arts and Sciences, Florida International University, Miami, FL 33199.

- W-74. DIFFERENTIAL INDUCTION OF POST-ENCEPHALITIC REGULATORY T-CELLS BY DISTINCT BRAIN CELL POPULATIONS. Schachtele, SJ 1, Mutnal, MB 1, Hu, S 1, Lokensgard, JR 1; 1Center for Infectious Disease & Microbiology Translational Research, Univ. of Minnesota, Minneapolis, MN 55407.
- W-75. A MURINE MODEL OF HIV RECAPITULATE KEY FEATURES OF HIV-1 INFECTION IN THE CONTEXT OF OPIOID ABUSE. Sharma, U 1, Banerjee, S 1, Sindberg, G 2, Charboneau, R 3, Volsky, DJ 4, Roy, S 1; 1Department of Surgery, University of Minnesota, Minneapolis, MN 554552Comparative and Molecular Biosciences, University of Minnesota, Minneapolis, MN 554553Department of Surgery, Veterans Affairs Medical Center, Minneapolis, MN 554174Molecular Virology Division, St. Luke's-Roosevelt Hospital Center, New York, NY 10019.
- W-76. ADOLESCENT BINGE DRINKING PERSISTENTLY INCREASES NEUROIMMUNE SIGNAL EXPRESSION IN THE ADULT PREFRONTAL CORTEX. Vetreno, R.P. 1, Qin, L. 1, Crews, F.T. 1; 1Bowles Center for Alcohol Studies, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599.
- W-77. GLUTAMINASE 1 IS ESSENTIAL FOR THE SURVIVAL, DIFFERENTIATION, AND PROLIFERATION OF NEURAL PROGENITOR CELLS. Wang, Y 1, Huang, Y 1, Zhao, L 1, Li, Y 1, Zheng, J 1; 1Dept of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68105.
- W-78. HEPATITIS C VIRUS IMPAIRS TOLL-LIKE RECEPTOR-3 SIGNALING AND INHIBITS IFN-LAMBDA 1 EXPRESSION IN HUMAN HEPATOCYTES. Wang, Y.Z. 1, Li, J.L. 1, Wang, X. 1, Ye, L. 1, Zhou, Y. 1, Thomas, R.M. 1, Ho, W.Z. 1; 1Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.
- W-79. EXERCISE MODULATES REDOX-SENSITIVE SMALL GTPASE ACTIVITY IN THE BRAIN MICROVASCULATURE IN A MODEL OF BRAIN METASTASIS FORMATION. Wolff, G 1, Park, M 1, Andras, IE 1, Kim, HJ 1, Toborek, M 1; 1Biochemistry and Molecular Biology, Univ. of Miami, FL 33136.
- W-80. ANTI-INFLAMMATORY EFFECT OF DEXAMETHASONE -HPMA COPOLYMER IN A MURINE MODEL OF HIV-1 ENCEPHALITIS. Zhao, L1, Huang, Y1, Wang, D2, Zheng, J.C1; 1Dept. of Pharmacology & Experimental Neuroscience; 2Dept. of Pharmaceutical Sciences, College of Pharmacy, Univ. of Nebraska Medical Center, Omaha, NE 68198.

***Please remember to take down all posters after the session.***

## **Thursday, April 4, 2013**

*All sessions held in Ponce de Leon Rooms A/C, Ocean Tower, Mezzanine level unless otherwise listed.*

- 7:00-8:00am**                    **Continental Breakfast for Conference Registrants**  
(Ponce de Leon Foyer)
- 8:00-8:15am**                    **INTRODUCTION TO THE MEETING**  
**Welcome from the Society on NeuroImmune Pharmacology**  
**Sabita Roy Ph.D.**- SNIP President  
(University of Minnesota, Minneapolis)
- 8:15 – 8:55am**                    **PLENARY LECTURE 1: Benjamin Chen, M.D., Ph.D.**- Mount Sinai School of Medicine, NY.  
  
2009 Avant-Garde Award for Innovative HIV-AIDS Research  
Title: Visualizing HIV dissemination through virological synapses.  
  
**Introduction by Dr. Chandranu Dash PhD.** – Meharry Medical College School of Medicine, Nashville, Tennessee
- 8:55 -11:20am**                    **SYMPOSIUM #1: Neuroimmune Activation by Alcohol, Drugs and/or AIDS**  
**Contributes to Addiction Neurobiology**  
  
*Co-Chairs:*     *Fulton Crews, Ph.D.*– UNC Medical School, Chapel Hill, NC  
                         *Changhai Cui, Ph.D.*– NIAAA, NIH, Bethesda, MD

- 8:55-9:00am**      **Introductory Remarks: Changhai Cui, Ph.D.-** NIAAA, NIH, Bethesda, MD
- 9:00-9:25am**      **Lecture 1: Dr. Fulton T. Crews-** UNC Medical School, Chapel Hill, NC  
Title: Ethanol activates HMGB1/TLR-RAGE Signaling inducing innate immune genes in brain.
- 9:25-9:50am**      **Lecture 2: Dr. Dipak Sarkar-** Rutgers University, New Brunswick, NJ  
Title: Microglial mediation of alcohol programming of the neuroendocrine-stress axis influencing alcohol-drinking behavior.
- 9:50-10:15am**      **Lecture 3: Dr. R. Adron Harris, Ph.D.-** Waggoner Center, University of Texas  
Title: Neuroimmune regulation of alcohol consumption, opportunities for therapeutics?
- 10:15-10:40am**      **Lecture 4: Dr. Mark Hutchinson, PhD-** School of Med. Sciences, University of Adelaide  
Title: The proinflammatory hypothesis of addiction: clinical and preclinical evidence
- 10:40-10:50am**      **Coffee Break**
- 10:50-11:15am**      **Lecture 5: Dr. Sietse Jonkman, Ph.D., Scripps Research Inst., Jupiter, FL**  
Title: miRNA132 promotes cocaine addiction through NFkB signaling
- 11:15-11:20am**      **Concluding Remarks** Sulie L. Chang, PhD, Seton Hall University
- 11:20-11:50am**      **PLENARY LECTURE 2: Thirumala-Devi Kanneganti, Ph.D.-** St. Jude Children's Research Hospital  
Title of talk: Mediators of Inflammatory Responses  
**Introduction: Dr. Prasun Datta, Ph.D.-** Temple University, Philadelphia
- 11:50-12:55pm**      **Meet the Mentors Luncheon** (*Ponce de Leon B*)
- 11:50-12:55pm**      **Lunch on your own (for those not attending Meet the Mentors Lunch)**
- 1:00-2:00 pm**      **SNIP Annual Business Meeting** (*Ponce de Leon A/C*)  
All Society Members Welcome  
ECITA should attend. All trainee members of SNIP highly encouraged to participate. Prizes will be given by raffle to those in attendance.
- 2:00-4:30 pm**      **SYMPOSIUM II: Emerging Trends in Substance Abuse, HIV Infection and Neuropathogenesis**  
*Co-Chairs: Kelly Jordan-Sciutto, Ph.D.- University of Pennsylvania  
Thomas Rogers, Ph.D.- Temple University, Philadelphia, PA*
- 2:00 –2:25pm**      **Lecture 1: Jag Khalsa, Ph.D.-** NIDA/NIH  
Title: Clinical implications of Neuro-Immune Pharmacology
- 2:25-2:50pm**      **Lecture 2: Olimpia Meucci, M.D.-** Drexel University, Philadelphia  
Title: The FHC-CXCR4 connection and its relevance to HAND and drug abuse

- 2:50-3:15pm**      **Lecture 3: Lena Al-Harhi, Ph.D.-** Rush University, Chicago  
 Title: Astrocytes and NeuroAIDS: The Wnt/ $\beta$ -catenin connection in virus/host interaction and neuropathogenesis
- 3:15-3:25pm**      **Coffee Break**
- 3:25 – 3:50pm**      **Lecture 4: Shilpa Buch, Ph.D.-** University of Nebraska  
 Title: HIV and Morphine mediated regulation of neuronal dysfunction: blaming the Messenger
- 3:50-4:15pm**      **Lecture 5: Joan Berman, Ph.D.-** Albert Einstein College of Medicine, Bronx, NY  
 Title: Dopamine mediated neuroinflammation and CNS damage in the context of HIV infection: A common mechanism of drugs of abuse
- 4:15-4:30pm**      **Lecture 6: Santanu Banerjee. Ph.D.-** University of Minnesota  
 Title: Morphine attenuation of LPS tolerance-Role of miRNA
- 4:35 – 7:35 pm**      **Poster Session 2** (*Brisas del Mar, Ocean Tower, Lobby level*)  
 (*Coffee Break during Poster Session*)  
*Please have posters numbered 1-40 mounted by 4:00pm.*  
*Posters T-1 through T-40 to be presented from 4:35-5:55pm, and then removed.*  
*Posters T-41 through T-75 to be mounted at 6pm and presented until 7:35pm.*

**Poster titles listed by assigned Poster Board Numbers**  
 (see *Journal of Neuroimmune Pharmacology* for complete abstracts)

**GENERAL POSTER SESSION TITLES**

- T-1.      LONG-TERM HIV-1 INFECTION OF HUMANIZED MICE LEADS TO BEHAVIORAL ABNORMALITIES. Akhter, S 1, Epstein, A 1, Poluektova, L 1, Gendelman, HE 1, Gorantla, S 1; 1Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center , Omaha, NE 68198.
- T-2.      HUMAN NEUROGENESIS IN NSG MICE FOR HAND PATHOGENESIS STUDIES. Akhter, SA, Knibbe, J, Wu, L, Li, Y, Peng, H, Gorantla , S, Poluektova, LY; Univ. of Nebraska Medical Center, Department of Pharmacology and Experimental Neuroscience, Omaha, NE 68198.
- T-3.      FORMATION OF D1/NMDA RECEPTOR COMPLEXES MEDIATES HIV-1 PROTEINS+METH SYNAPTODENDRITIC INJURY. Aksenova, M.V. 1, Mactutus, C.F. 1, Booze, R.M. 1; 1Psychology Department, University of South Carolina, Columbia, SC 29208.
- T-4.      HIV-1 INDUCED AMYLOID BETA ACCUMULATION IN BRAIN ENDOTHELIAL CELLS. Andras IE, Toborek M; Department of Biochemistry and Molecular Biology, University of Miami School of Medicine, Miami, FL 33136.
- T-5.      HIV INTERACTS WITH NEURONAL TUBULIN: A MECHANISM FOR MICROTUBULAR NETWORK IMPAIRMENT?. Avdoshina, V 1, Sahab, ZJ 2, Rozzi, SJ 3, Lim , ST 1, Mocchetti, I 1; 1Department of Neuroscience, Georgetown University Medical Center, Washington, DC 200572Department of Molecular Oncology, Georgetown University Medical Center, Washington, DC 200573Interdisciplinary Program in Neuroscience, Georgetown University Medical Center, Washington, DC 20057.
- T-6.      MANGANESE ENHANCED MAGNETIC RESONANCE IMAGING (MEMRI) REFLECTS HUMAN NEUROPATHOLOGY IN A MURINE MODEL OF HIV-1 ASSOCIATED NEUROCOGNITIVE DISORDERS (HAND). Bade, AN 1, Gorantla, S 1, Poluektova, LY 1, Makarov, E 1, Gendelman, HE 1, Boska, MD 2, Liu, Y 2; 1Department of Pharmacology and Experimental Neuroscience, University of

Nebraska Medical Center, Omaha, Omaha, NE 68198  
Department of Radiology, University of Nebraska Medical Center, Omaha, Omaha, NE 68198.

- T-7. WITHAFERIN A INHIBITS IL-1BETA MEDIATED INDUCTION OF MIR-146A EXPRESSION IN HUMAN ASTROCYTES BY DOWN-REGULATING NF-KB SIGNALING. Banerjee, S 1, Datta, P.K 1; 1Department of Neuroscience/ Center for Neurovirology, Temple University School of Medicine, Philadelphia, PA 19140.
- T-8. HIV-1 TAT/COCAINE-INDUCED SYNAPTODENDRITIC INJURY IS PREVENTED BY ESTROGENIC COMPOUNDS. Bertrand, SJ 1, Aksenova, MV 1, Mactutus, CF 1, Booze, RM 1; 1Psychology Department, University of South Carolina, Columbia, SC 29208.
- T-9. ROLE OF IL-1 SIGNALING IN REGULATION OF BEHAVIORAL EFFECTS OF ETHANOL AND BENZODIAZEPINES. Blednov YB, Harris RA; Waggoner Center for Alcohol and Addiction Research, University of Texas, Austin, TX 78712.
- T-10. HISTONE DEACETYLASE DEREGLATION IN HIV-1-INFECTED MACROPHAGES EXPOSED TO METHAMPHETAMINE. Burns, AC 1, Olszowy, P 1, Ciborowski, P 1; 1Pharmacology & Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198.
- T-11. DOPAMINE INCREASES CD14+CD16+ MONOCYTE TRANSMIGRATION ACROSS THE BBB. Calderon, TM 1, Lopez, L 1, Williams, DW 1, Gaskill, PJ 1, Eugenin, EA 2, Berman, JW 1; 1Department of Pathology, Albert Einstein College of Medicine, Bronx, NY 10461  
2Public Health Research Institute (PHRI) and Department of Immunology and Molecular Genetics, University of Medicine and Dentistry of New Jersey, Newark, NJ 07103.
- T-12. CHRONIC MORPHINE PREVENTS GP120-MEDIATED CELL DEATH BY ALTERING THE PROBDNF PROCESSING. Campbell, L 1, Passeri, E 1, Mocchetti, I 1, Bachis, A 1; 1Department of Neuroscience, Georgetown University, Washington, DC 20057.
- T-13. POTENTIAL PROTECTIVE ROLE OF THE TIGHT JUNCTION PROTEIN OCCLUDIN AGAINST HIV-1 INFECTION OF PERICYTES. Castro, V 1, Lüthen, M 2, Toborek, M 1; 1Biochemistry and Molecular Biology, University of Miami. Miller School of Medicine, Miami, FL 33136  
2Department of Biology, Freie Universität-Berlin, Berlin, 14195.
- T-14. MORPHINE-INDUCED EPIGENETIC FACTORS PROMOTE MACROPHAGE APOPTOSIS VIA ACTIVATION OF THE RENIN ANGIOTENSIN SYSTEM. Chandel, N 1, Malhotra, A 1, Singhal, PC 1; 1Hofstra University, North-Shore Long-Island Jewish Medical Health system, Great Neck, NY 11021.
- T-15. NEURAL STEM CELL PROLIFERATION IS MODULATED BY DIFFERENTIAL FGF-2 EXPRESSION DURING EXPERIMENTAL HERPES SIMPLEX ENCEPHALITIS. Cheeran M C-J, Rotschafer JH, Hu S, Low WC; Veterinary Population Medicine, University of Minnesota, St. Paul, MN 55108; Center for Infectious Diseases and Microbiology Translational Research, Department of Medicine, and Department of Neurosurgery and Stem Cell Institute, University of Minnesota, Minneapolis, MN 55455.
- T-16. CXCR7, A NOVEL RECEPTOR OF CXCL12, MEDIATES MIGRATION AND SIGNALING OF NEURAL PROGENITOR CELLS IN VITRO. Chen, Q 1, Li, Y 1, Song, A 1, Zhu, B 1, Peng, H 1, Huang, Y 1, Tian, C 1, Xu, D 1, Zheng, J. C 1; 1Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198.
- T-17. POST-TRANSLATIONAL MODIFICATIONS OF HISTONE H4 IN HUMAN IMMUNODEFICIENCY VIRUS-1 INFECTED HUMAN MACROPHAGES EXPOSED TO METHAMPHETAMINE AND ANTIRETROVIRAL DRUGS. Ciborowski P, Burns A, Olszowy PP; Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198-5800.
- T-18. IMPACT OF SUBSTANCE ABUSE ON HIV-1 LTR SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS) AND DISEASE PROGRESSION IN A CLINICAL COHORT. Dampier, W 1, Nonnemacher, M 1, Pirrone,

V 1, Williams, J 1, Aiamkitsumrit, B 1, Wojno, A 1, Passic, S 1, Blakey, B 1, Zhong, W 1, Moldover, B 3, Feng, R 4, Downie, D 2, Lewis, S 2, Jacobson, J 2, Wigdahl, B 1; 1Dept. of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA 191022Division of Infectious Disease and HIV Medicine, Dept. of Medicine, Drexel University College of Medicine, Philadelphia, PA 191023B-Tech Consulting, LTD, B-Tech Consulting, LTD, Philadelphia, PA 191304Dept. of Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA 19104.

- T-19. ROLE OF EPIGENETICS IN ASTROCYTIC EAAT2 GENE EXPRESSION BY IL-1 BETA. Datta, P 1; 1Neuroscience, Temple University School of Medicine, Philadelphia, PA 19140.
- T-20. HIV-TAT AND COCAINE MEDIATED DOWN-REGULATION OF BMP RECEPTOR AXIS IN PULMONARY ARTERIAL SMOOTH MUSCLE CELLS: IMPLICATIONS FOR HIV-PAH. Dhillon NK, Dalvi P, O'Brien-Ladner A; Internal Medicine, University of Kansas Medical Center, Kansas City, KS 66160.
- T-21. DUAL MECHANISM ENHANCED BBB CROSSING BY TRANSFERRIN CONJUGATED FLUORESCENT MAGNETIC LIPOSOME. Ding H, Agudelo M, Kanthikeel SP, Guduru R, Sagar V, Atluri V, Thangavel S, Nair MN; Department of Immunology, Florida International University, Miami, FL 33199.
- T-22. ROLE OF CYP2A6 IN NICOTINE METABOLISM STUDIED USING NEWLY DEVELOPED LC-MS/MS-SPE METHOD IN HIV-1 MODELS MONOCYTES AND ASTROCYTES, AND PLASMA FROM HIV-INFECTED SMOKERS. Earla, R 1, Ande, A 1, Mitra, AK 1, Kumar, A 1, Kumar, S 1; 1University of Missouri-Kansas City, UNKC School of Pharmacy, Kansas City, MO 64108.
- T-23. NEUROPROTECTIVE ROLE OF PHOSPHODIESTERASE INHIBITOR IBUDILAST ON NEURONAL CELL DEATH INDUCED BY HIV-1 AND MORPHINE ACTIVATED GLIA. El-Hage, N 1, Zou, S 2, Snyder, S 1, Podhaizer, EM 1, Beardsley, PM 1, Knapp, PE 2, Hauser, KF 1; 1Department of Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA 232982Department of Anatomy and Neurobiology, Virginia Commonwealth University, Richmond, VA 23298.
- T-24. METHAMPHETAMINE ALTERS GAP JUNCTIONAL COMMUNICATION BETWEEN NEURONS AND ASTROCYTES: POTENTIAL ROLE IN CNS COMPROMISE AND DRUG DEPENDENCY. Eugenin E, Nosanchuck J, Martinez L, Castellano P; Microbiology and Molecular Genetics, and the Public Health Research Institute, UMDNJ, Newark, NJ 07103; Department of Biomedical Sciences, Albert Einstein College of Medicine (Long Island University-Post, Brookville, NY) Bronx, NY 10461
- T-25. HIV INFECTION OF ASTROCYTES INCREASED RELEASE OF DICKKOF-1 (DKK1) PROTEIN BY A HEMICHANNEL-DEPENDENT MECHANISM. Eugenin, E 1, Orellana, JA 2, Saez, JC 2, Bennett, M 3, Berman, J 3, Morgello, S 4; 1Microbiology and Molecular genetics, Public Health Research Institute (PHRI)/UMDNJ, Newark, NJ 071032Physiology, Pontificia Univ Catolica de Chile, Santiago, 3Albert Einstein College of Medicine, Bronx, NY 104614neurology, Mount Sinai, NY, NY 10010.
- T-26. EXPOSURE TO FLAME RETARDANT BDE-47 INDUCES OCCLUDIN DISRUPTION AND VCAM-1 EXPRESSION IN HUMAN BRAIN ENDOTHELIAL CELLS. Eum, SY 1, Choi, JJ 1, Andra, IE 1, Park, M 1, Toborek, M 1; 1Department of Biochemistry & Molecular Biology, University of Miami Miller School of Medicine, Miami, FL 33136.
- T-27. ACTIVATION OF MACROPHAGE DOPAMINE RECEPTORS MAY EXACERBATE HAND BY INCREASING HIV ENTRY INTO MACROPHAGES AND ALTERING MACROPHAGE FUNCTIONS. Gaskill, PJ, Berman, JW Dept of Pathology, Albert Einstein College of Medicine, Bronx, NY 10461.
- T-28. ANGIOTENSIN II AND IV IN GLUCOSE TOLERANCE AND OXIDATIVE STRESS OF HUMAN NEURONAL CELLS. Gerena, Y 1, Sierra, J 2, Sánchez-Courtney, Y 3, Méndez, J 4, Pérez, S 2, Hilera, C 2, Wojna, V 5; 1Pharmaceutical Sciences Dept., University of Puerto Rico, Medical Sciences Campus, San Juan, PR 009362Rio Piedras Campus, University of Puerto Rico, Rio Piedras, PR 009313Medicine, San Juan Bautista, Caguas, PR 007254Earth Institute, Columbia University, New

York, NY 100275Neurology Division, University of Puerto Rico, Medical Sciences Campus, San Juan, PR 00936.

- T-29. POTENTIAL ROLE OF GP120 IN HIV-INDUCED AIRWAY MUCUS FORMATION AND LUNG DISEASE. Gundavarapu, S 1, Mishra, N.C. 1, Singh, S.P. 1, Langley, R.J. 1, Buch, S 2, Sopori, M.L 1; 1Respiratory Immunology Division, Lovelace Respiratory Research Institute, Albuquerque, NM 8710822Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198.
- T-30. MODULATION OF HUMAN CD4 AND CD8 T CELLS CELL CYCLE ENTRY AND PROGRESSION TO METHAMPHETAMINE. Haldar, B 1, Cenna, J M 1, Potula, R 1; 1Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.
- T-31. METHAMPHETAMINE (METH) MEDIATED IMMUNE DYSREGULATION IN AN ANIMAL MODEL OF CHRONIC VIRAL INFECTION. Haldar, B 1, Cenna, JM 1, Gofman, L 1, Potula, R 1; 1Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.
- T-32. MECHANISMS OF CEREBRAL HEMORRHAGIC LESIONS IN DRUG ABUSE NEUROAIDS. Haorah, J 1, Abdul Muneer, PM 1, Szlachetka, A 1; 1University of Nebraska Medical Center, Omaha, NE , Neurovascular Oxidative Injury Laboratory, Dept. of Pharmacology and Experimental Neuroscience, Omaha, NE 68198-5215.
- T-33. EXOSOME-MEDIATED SHUTTLING OF MICRORNA-29 REGULATES HIV TAT AND MORPHINE-MEDIATED NEURONAL DYSFUNCTION. Hegde R1, Callen S2, Hu G2, Yao H2, Chaudhuri AD2, Duan M2, Yelamanchili SV2, Wen H2, Cheney PD1, Fox HS2, Buch S1,2. 1Department of Molecular and Integrative Physiology, University of Kansas Medical Center, Kansas City, Kansas 66160, USA; 2Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198.
- T-34. DAMAGE CONTROL IN VIVO: NEUROPROTECTIVE LIPOCALIN-2 IS UPREGULATED IN BRAINS OF HIV-1/GP120-TRANSGENIC MICE. Hoefler, M. M. 1, Maung, R. 1, De Rozieres, C. M. 1, Dowling, C. C. 1, Catalan, I. C. 1, Sanchez, A. B. 1, Kaul, M. 1; 1Infectious and Inflammatory Disease Center, Sanford-Burnham Medical Research Institute, La Jolla, CA 92037.
- T-35. BRAIN CELLS MODULATE ENCEPHALITOGENIC T-CELL RESPONSES VIA PD-1: PD-L1. Hu S, Schachtele SJ, Mutnal MB, Sheng WS, Lokensgard JR; Center for Infectious Diseases and Microbiology Translational Research, University of Minnesota, Minneapolis, MN 55455.
- T-36. OPIATES DEACTIVATE REDOX-SENSITIVE STRESS RESPONSE PROGRAM IN T CELLS. Husain, M 1, Rehman, S 2, Chandel, N 2, Lan, X 2, Malhotra, A 2, Singhal, PC 2; 1Department of Biotechnology, Jamia Millia Islamia, New Delhi , 1100252Feinstein Institute for Medical Research, Hofstra North Shore LIJ Medical School, Great Neck, NY 11021.
- T-37. REGULATION OF CYTOCHROME P450 2E1 EXPRESSION BY ETHANOL: ROLE OF OXIDATIVE STRESS-MEDIATED PKC/JNK/SP1 PATHWAY. Jin, M1, Ande, A1, Kumar, A1, Kumar, S1; 1Division of Pharmacology and Toxicology, Univ. of Missouri-Kansas City, Kansas City, MO 64108.
- T-38. E2F1 AT THE SYNAPSE: NOVEL FUNCTIONS FOR A CELL CYCLE TRANSCRIPTION FACTOR IN A NON-CELL CYCLE CONTEXT. Jordan-Sciutto KL, Ting JH, Schleidt S, Wu J, Marks, DR; Department of Pathology/Dental Medicine, University of Pennsylvania, Philadelphia, PA 19104.
- T-39. THE ROLE OF CELL CYCLE PROTEIN E2F1 IN HIV-INDUCED NEUROTOXICITY. Jordan-Sciutto, KL 1, Zyskind, JW 1, Wang, Y 1, Akay, C 1, Kolson, DL 2; 1Department of Pathology/Dental Medicine, 2Department of Neurology/Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA 19104.



- T-40. MAGNETO-ELECTRIC NANOPARTICLES FOR NON-INVASIVE BRAIN STIMULATION. Khizroev, S. 1, Yue, K. 1, Guduru, R. 1, Liang, P. 2, Hong, J. 1, Nair, M. 1; 1Center for Personalized NanoMedicine/Institute of Neuro-Immune Pharmacology/Department of Immunology, Herbert Wertheim College of Medicine/Florida International University, Miami, FL 331992Department of Electrical Engineering, University of California, Riverside, CA 92521.
- T-41. VOLUNTARY EXERCISE REDUCES THE EFFECTS OF METHAMPHETAMINE ON THE EXPRESSION OF MULTIDRUG RESISTANCE TRANSPORTERS IN BRAIN ENDOTHELIUM. Kim, HJ 1, Zhang, B 1, Park, M 1, Toborek, M 1; 1Biochemistry and Molecular Biology, University of Miami, Miami, FL 33136.
- T-42. CYTOKINE PROFILES IN ANTIRETROVIRAL TREATED MACROPHAGES AND ASTROCYTES. King, J 1, Chan, J 1, Jordan-Sciutto, K 1; 1Department of Pathology, University of Pennsylvania, Philadelphia, PA 19104.
- T-43. FEASIBILITY OF THE CONDITIONAL DEPLETION OF MOUSE MICROGLIA: IMPLICATION FOR HUMANIZED MOUSE MODEL IMPROVEMENT. Knibbe J, Gutti T, Akhter S, Bade A, Liu Y, Gorantla S, Poluektova L; University of Nebraska Medical Center, College Of Medicine / PEN Department, Omaha, NE 68114.
- T-44. INTERPLAY OF COCAINE ABUSE AND HIV-1 TAT PROTEIN ON OLIGODENDROCYTE FUNCTION: IMPLICATIONS FOR HIPPOCAMPAL DEMYELINATION AND PROGRESSION OF HAND. Kovalevich, J 1, Yen, W 1, Ozdemir, AY 1, Langford, D 1; 1Neuroscience, Temple University School of Medicine, Philadelphia, PA 19140.
- T-45. ASHWAGANDHA (WITHANIA SOMNIFERA) REVERSES B-AMYLOID INDUCED NEURONAL TOXICITY: IMPLICATIONS IN HAND. Kurapati, V.K.R 1, Atluri, V.S.R 1, Samikkannu, T 1, Yndart, A.A 1, Nair, M.P.N 1; 1Immunology, Florida International University, College of Medicine, Miami, FL 33199.
- T-46. ETHANOL DOWN REGULATES T CELL VITAMIN D RECEPTOR THROUGH MODULATION OF EPIGENETIC FACTORS. Lan, X 1, Chandel, N 1, Lederman, R 1, Valecha, G 1, Malhotra, A 1, Singhal, PC 1; 1Feinstein Institute for Medical Research, Hofstra North Shore LIJ Medical School, Great Neck, NY 11021.
- T-47. ETHANOL DOWN REGULATES T CELL VITAMIN D RECEPTOR THROUGH MODULATION OF EPIGENETIC FACTORS. Lan, X, Chandel, N, Lederman, R, Valecha, G, Malhotra, A, Singhal, PC; Feinstein Institute Medical Research, Hofstra North Shore LIJ Medical School, Great Neck, NY 11021.
- T-48. PINCH IN THE CELLULAR STRESS RESPONSE TO TAU-HYPERPHOSPHORYLATION. Langford, D 1, Ozdemir, AY 1, Rom, I 1, Kovalevich, J 1, Yen, W 1, Adiga, R 1, Dave, R 1; 1Neuroscience, Temple University School of Medicine, Philadelphia, PA 19140.
- T-49. LPS INDUCES IMMUNE ACTIVATION AND SIV REPLICATION IN CHINESE RHESUS MACAQUES. Li, J-L 1, Bao, R 1, Guo, M 2, Ye, L 3, Zhang, J 1, Dai, M 1, Rao, Y 1, Wang, Y 1, Xian, Q-Y 1, Huang, Z-X 1, Tang, Z-J 1, Persidsky, Y 3, Ho, W-Z 3; 1The Center for Animal Experiment/Animal Biosafety Level III Laboratory, Wuhan University School of Medicine, Hubei, 4300712State Key Laboratory of Virology, Wuhan University School of Medicine, Wuhan, PA 4300713Department of Pathology and Laboratory Medicine, Temple University School of Medicine , Philadelphia, PA 19140.
- T-50. HIV-1 TAT PROTEIN INCREASES MICROGLIAL OUTWARD K CURRENT AND RESULTANT NEUROTOXIC ACTIVITY. Liu, J 1, Collins, C 1, Xu, P 1, Chen, L 1, Xiong, H 1; 1Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198-5880.
- T-51. ANTIRETROVIRAL THERAPY REVERSES HIV-MEDIATED SUPPRESSION OF ANTIVIRAL CELLULAR FACTORS. Liu, MQ 1, Zhao, M 2, Zhou, W 1, Peng, JS 1, Wang, X 3, Wang, F 1, Zhou, DJ 1, Ho, WZ 3; 1Department of Virology, Wuhan Centers for Disease Prevention & Control, Wuhan,

4300152Wuhan AIDS Care Center, Wuhan Municipal Institute of Dermatoses, Wuhan, 4300303Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19104.

- T-52. MIR-9 PROMOTES MICROGLIAL ACTIVATION BY TARGETING MCP1: IMPLICATIONS FOR HAND. Ma, R 1, Yao, H 1, Buch, S 1; 1Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE 68198.
- T-53. EFFECT OF HIV-1 SUBTYPE C INFECTION ON IMMUNE AND NERVOUS SYSTEM FUNCTION AND BIOLOGY IN A HUMANIZED MOUSE MODEL OF HIV/AIDS. Makarov, E 1, Adem, S 1, Wood, C 2, Poluektova, L 1, Gendelman, HE 1, Gorantla, S 1; 1Dept. of Pharmacology and Experimental Neuroscience, Univ. of Nebraska Medical Center, Omaha, NE 681982Nebraska Center for Virology, Univ. of Nebraska at Lincoln, Lincoln, NE 68583.
- T-54. CLINICAL CORRELATION WITH CD4 COUNT AND MENTAL DIAGNOSIS AMONG HIV INFECTED DRUG USERS. Munoz-Caamano, K., Raymond, A., Yndart, A., Pilakka-Kanthikeel, S., Nair, MPN.; Dept. of Immunology, Institute of NeuroImmune Pharmacology, Herbert Wertheim College of Medicine, Florida International University, Miami, FL 33199.
- T-55. THC-INDUCED DYSREGULATION IN MICRORNA TRIGGERS MYELOID-DERIVED SUPPRESSOR CELLS AND CONSEQUENT SUPPRESSION OF T CELL RESPONSES TO GP120 OF HIV. Nagarkatti M, Hegde V, Nagarkatti P; Dept. of Pathology, Microbiology and Immunology, University of South Carolina School of Medicine, Columbia, SC 29209.
- T-56. HIV-1 LTR SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS) CORRELATE WITH CLINICAL DISEASE PARAMETERS. Nonnemacher, M 1, Pirrone, V 1, Dampier, W 1, Aiamkitsumrit, B 1, Williams, J 1, Shah, S 1, Wojno, A 1, Passic, S 1, Blakey, B 1, Zhong, W 1, Moldover, B 3, Feng, R 4, Downie, D 2, Lewis, S 2, Jacobson, J 2, Wigdahl, B 1; 1Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA 191022Division of Infectious Disease and HIV Medicine, Department of Medicine, Drexel University College of Medicine, Philadelphia, PA 191023B-Tech Consulting, LTD, B-Tech Consulting, LTD, Philadelphia, PA 191304Department of Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA 19104.
- T-57. ALCOHOL MEDIATED INDUCTION OF PROINFLAMMATORY CYTOKINES IN HUMAN ASTROCYTES. Nookala, A, Gangwani, M, Rey, JP, Shah, A, Kumar, S, Kumar, A; Pharmacology & Toxicology, UMKC-School of Pharmacy, Kansas City, MO 64108.
- T-58. TAT-MEDIATED CHANGES OF MALAT1 LONG NON-CODING RNA AFFECTS THE STRUCTURE AND FUNCTION OF SC35 NUCLEAR SPECKLES DOMAINS IN NEURONS. Pacifici, M 1, Kadri, F 1, Jeansonne, D 1, Peruzzi, F 1; 1LCRC, LSUHSC School of Medicine, New Orleans, LA 70112.
- T-59. HIV-RELATED PAIN AND GP120 IN THE BRAIN. Palma, J, Geller, E, Adler, M, Eisenstein, T, and Benamar, K. Center for Substance Abuse Research (CSAR), Temple University School of Medicine, Philadelphia, Pennsylvania, USA.
- T-60. METHAMPHETAMINE-INDUCED OCCLUDIN ENDOCYTOSIS IS MEDIATED BY THE ARP2/3 COMPLEX-REGULATED ACTIN REARRANGEMENT. Park, M 1, Kim, HJ 1, Toborek, M 1; 1Department of Biochemistry and Molecular Biology, University of Miami School of Medicine, Miami, FL 33136.
- T-61. COMORBIDITY OF ALCOHOLISM, HIV INFECTION AND HEPATITIS C: IN VIVO BRAIN IMAGING. Pfefferbaum A, Zahr NM, Sullivan EV; Center for Health Science, SRI International, Menlo Park, CA 94025; Department of Psychiatry, Stanford University School of Medicine, Stanford, CA 94305.
- T-62. LONGITUDINAL STUDY OF HIV-1 INDUCED NEUROPATHOGENESIS IN HUMANIZED NOD/SCID-IL 2RECEPTOR GAMMA CHAIN-NUL (NSG) MOUSE MODEL. Potula, R 1, Zuluaga-Ramirez, V 1,

Reichenbach, N 1, Cenna, JM 1, Persidsky , Y 1; 1Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.

- T-63. SPECTRUM OF AUTOPSY HIV NEUROPATHOLOGY IN THE POST ANTI-RETROVIRAL THERAPY (ART) ERA: EXPERIENCE IN A SINGLE URBAN TERTIARY TEACHING HOSPITAL. Potula, R, Zhang, M, Ramirez, SH, Persidsky, Y, Mukherjee, A; Pathology and Laboratory Medicine, Temple Univ. Hospital and School of Medicine, Philadelphia, PA 19140.
- T-64. SERUM DETECTION OF SHED EXTRACELLULAR MICROVESICLES FROM BRAIN ENDOTHELIAL CELLS: SEROLOGICAL INDICATORS OF BLOOD BRAIN BARRIER (BBB) DISRUPTION DURING NEUROINFLAMMATION. Ramirez, SH 1, Persidsky, Y 1, Rom, S 1, Dykstra, H 1; 1Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.
- T-65. COCAINE ENHANCES HIV-1 REPLICATION IN MONOCYTE DERIVED MACROPHAGES BY REGULATING THE ACTIVATING TRANSCRIPTION FACTOR-2 (ATF-2). Ranjan, A 1, Pandhare-Dash, J 1, Mantri, C K 1, Dash, CV 1; 1CAHDR, Meharry Medical college, Nashville, TN 37208.
- T-66. HIV NEUROPATHOGENESIS: ROLE OF NEF+ EXOSOMES (EXNEF), METHAMPHETAMINE AND OPIATES. Raymond, A.D. 1, Yndart-Arias, A. 1, Agudelo, M. 1, Munoz, K. 1, Alturi, V.S. 1, Pilakka, S. 2, Thangavel, S. 2, Nair, M.P. 1; 1Department of Immunology, Florida International University, Herbert Wertheim College of Medicine; 2Institute of NeuroImmune Pharmacology, Florida International University, Miami, FL 33199.
- T-67. SELECTIVE ACTIVATION OF CANNABINOID RECEPTOR 2 (CB2) IN LEUKOCYTES SUPPRESSES THEIR ENGAGEMENT OF THE BRAIN ENDOTHELIUM AND PROTECTS THE BLOOD BRAIN BARRIER (BBB). Rom S, Zuluaga-Ramirez V, Dykstra H, Reichenbach NL, Persidsky Y; Department of Pathology & Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140.
- T-68. MAGNETIC-NANO FORMULATION OF M-OPIOID RECEPTOR ANTAGONIST (CTOP) FOR TREATMENT OF MORPHINE-INDUCED NEUROPATHOGENESIS IN HIV INFECTION. Sagar, Vidya 1, Pilakka-Kanthikeel , S. K. 1, Priestap, H. 2, Atluri, V. S. R. 1, Ding, H. 1, Guduru, R. 1, Khizroev, S. 1, Nair, M.P. 1; 1Center for Personalized Nanomedicine, Institute of NeuroImmune Pharmacology, Department of Immunology, Herbert Wertheim College of Medicine, Florida International University, Miami, FL 33199 2Department of Biological Sciences, College of Arts and Sciences, Florida International University, Miami, FL 33199.
- T-69. CANNABINOID BLOCKADE OF HIV-1 GP120-INDUCED EFFECTS ON HUMAN FETAL NEURAL PRECURSOR CELLS. Sheng, WS 1, Hu, S 1, Rock, R B 1; 1CIDMTR, Department of Medicine, University of Minnesota, Minneapolis, MN 55455.
- T-70. INTERPLAY OF HIV-1 GP120 AND OPIATES DURING THE PATHOGENESIS OF HIV-ASSOCIATED CHRONIC PAIN. Tang, S.-J. 1, Shi, Y. 1, Yuan, S. 1; 1Department of Neuroscience and Cell Biology, University of Texas Medical Branch, Galveston, TX 77555.
- T-71. IMMUNOPATHOGENIC MECHANISMS OF HIV-1 CLADE B AND C: ROLE OF DOPAMINERGIC SYSTEM. Thangavel, S 1, Rao, K.V.K 1, Raymond, A 1, Ding, H 1, Atluri , V.S.R 1, Nair, M.P 1; 1Institute of NeuroImmune Pharmacology (NIP), College of Medicine,, Florida International University, Miami, FL 33199.
- T-72. HEROIN USE INHIBITS ANTI-HIV MICRORNA EXPRESSION IN CD4+ T CELLS. Wang, X 1, Peng, JS 2, Liu, MQ 2, Zhou, Y 1, Wang, F 2, Zhou, W 2, Zhou, DJ 2, Ho, WZ 1; 1Dept. of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, PA 19140 2Dept. of Virology, Wuhan Centers for Disease Prevention & Control, WUHAN, 430015.
- T-73. DYSREGULATION OF IL-33 AND ST2 IN HIV1 B AND C CLADES. Yndart A, Agudelo M, Munoz-Caamano K, Raymond A, Nair M; Immunology Department, College of Medicine, Florida International University, Miami, FL 33199.

- T-74. URM-099: A MIXED-LINEAGE KINASE-3 (MLK3) INHIBITOR WITH THE POTENTIAL TO ERADICATE HUMAN IMMUNODEFICIENCY VIRUS INFECTION. Zhang G, Dash PK, Wiederin JL, Ciborowski PS, Goodfellow VS, McMillan JM, Smith NA, Gorantla AS, Gelbard, HA, Gendelman HE; University of Nebraska Medical Center, School of Medicine, Omaha, NE 68198; Califia Bio., Inc, San Diego, CA 92121; University of Rochester Medical Center, School of Medicine and Dentistry, Rochester, NY 14642.
- T-75. INTERMOLECULAR INTERACTION BETWEEN HIV-1 TAT PROTEIN AND DOPAMINE TRANSPORTER DISRUPTS THE PHYSIOLOGICAL FUNCTION OF DOPAMINE SYSTEM. Zhu, J 1, Midde, NM 1, Huang, X 3, Gomez, AM 1, Booze, RM 2, Zhan, CG 3; 1South Carolina College of Pharmacy, University of South Carolina, Columbia, SC 292082Psychology, University of South Carolina, Columbia, SC 292083College of Pharmacy, University of Kentucky, Lexington, KY 40536 .

**Please remove all posters at the end of the session**

## Friday, April 5, 2013

- 6:30-8:00am**      **JNIP Editorial Board Meeting** (*Ponce de Leon B*)
- 7:00-8:00am**      **Continental Breakfast for Conference Registrants**  
(*Ponce de Leon Foyer*)
- 8:00 – 8:40am**      **PLENARY LECTURE 3: Jon M Lindstrom Ph.D.-** University of Pennsylvania  
Title: Nicotinic acetylcholine receptors: Targets of nicotine and autoantibodies  
**Introduction: Mohan Sopori, Ph.D.-** Lovelace Respiratory Research Institute, Albuquerque, NM
- 8:40-10:10am**      **SYMPOSIUM III: Physiological and Pathological Role of Nicotinic Receptors**  
*Co-Chairs: Madhavan Nair, Ph.D.-* Florida International University  
*Mohan Sopori, Ph.D.-* Lovelace Respiratory Research Institute
- 8:40-9:05am**      **Lecture 1: Eliot R Spindel, Ph.D.-** Oregon Health and Science University  
Title: LYNX1 and other LY-6 proteins are a family of endogenous regulators of nicotinic signaling: Implications for lung disease and lung cancer
- 9:05 – 9:30am**      **Lecture 2: Mohan Sopori, Ph.D.-** Lovelace Institute  
Title: Nicotinic Receptors in Airway mucus formation in Health and Disease.
- 9:30-9:50am**      **Lecture 3: Santosh Kumar, Ph.D.-** UMKC  
Title: Role of cytochrome P450 enzymes in tobacco/nicotine-mediated effects on HIV-1 model systems
- 9:50-10:10am**      **Lecture 4: Venkata Subba Rao Atluri, Ph.D.-** Florida International University  
Title: Effect of nicotine on synaptic plasticity gene expression in HIV-1 infection: implication in HAND
- 10:10-10:20am**      **Coffee Break**
- 10:20-10:50am**      **Plenary Lecture 4: Bert t' Hart, Ph.D.-** Biomedical Primate Research Center, The Netherlands

Title: Mysterious Role of B lymphocytes in neuroinflammation

**Introduction: Howard Gendelman, M.D.-** University of Nebraska

**10:50-12:25pm Symposium IV: Animal Models of HIV infection and Drug Abuse Session**

*Co-Chairs: Shilpa Buch, Ph.D.-* University of Nebraska  
*Marcus Kaul, Ph.D.-* Sanford-Burnham Institute

**10:50-11:15am Lecture 1: Howard Fox, M.D., Ph.D.-** University of Nebraska, Omaha, NE

Title: Interaction of methamphetamine and HIV – A systems approach

**11:15-11:40am Lecture 2: Ken Williams, Ph.D.-** Boston College, Chestnut Hill, MA

Title: Monocyte and Macrophage Activation in SIV Pathogenesis

**11:40-12:05pm Lecture 3: Fatah Kashanchi, Ph.D.-** George Mason University, Manassas, VA

Title: Exosomes and their function in vitro and in vivo

**12:05-12:25pm Lecture 4: Marco Salemi, Ph.D.-** University of Florida, Gainesville, FL

Title: Phylodynamic analysis of brain infection in the SIV infected macaque model of NeuroAIDS

**12:30 - 1:30pm Early Career Investigators Grant Writing Workshop Session**

*Co-Chairs: Albert Avila, Ph.D.-* National Institute on Drug Abuse/NIH  
*Eduardo Montalvo Ph.D.-* CSR, National Institutes of Health

**1.30- 2.10pm Bill Narayan Lecture: Avi Nath, M.D.-** NINDS, National Institute of Health

Title: Eradication of HIV reservoirs from the brain

**Introduction: Shilpa Buch Ph.D.-** University of Nebraska, Omaha

**2:10 – 4:10pm Symposium V: Cannabinoids, HIV Pathogenicity, and Other Infectious Disease Processes**

*Organizers: Vishnudutt Purohit, Ph.D.-* National Institute on Drug Abuse, NIH  
*Guy A. Cabral, Ph.D.-* Virginia Commonwealth University

*Co-Chairs: Rao Rapaka, Ph.D.-* National Institute on Drug Abuse, NIH  
*Guy A. Cabral, Ph.D.-* Virginia Commonwealth University

**2.10-2.15pm Introductory Comments - Rao Rapaka, Ph.D.-** Chief, Chemistry and Physiological Systems Research Branch (CPSRB), NIDA, NIH

**2:15 – 2:40pm Lecture 1: Melissa Jamerson, Ph.D.-** Virginia Commonwealth University School of Medicine, Richmond, VA

Title: Cannabinoids mediate macrophage-like cell responsiveness to HIV-specified gene products

**2:40-3:05pm Lecture 2: Mitzi Nagarkatti, Ph.D.-** University of South Carolina School of Medicine, Columbia, SC

Title: THC-induced dysregulation in microRNA triggers myeloid-derived suppressor cells and consequent suppression of T cell responses to gp120 of HIV.

**3:05-3:30pm**      **Lecture 3: Nicole LeCapitaine, Ph.D.-** University Health Sciences Center, New Orleans, LA  
Title: Unraveling the impact of cannabinoids on HIV disease: a system-wide approach.

**3:30 – 3:55pm**      **Lecture 4: Norbert Kaminski, Ph.D.-** Director for Integrative Toxicology, Michigan State University, East Lansing, MI  
Title: Role of antigen presenting cells and the cannabinoid receptors 1 and 2 in  $\Delta^9$ -tetrahydrocannabinol impairment of the inflammatory response to influenza infection

**3:55-4:00pm**      **Summary and Conclusion – Vishnudutt Purohit, Ph.D.-** NIDA,NIH

**Afternoon and Evening Free!!!**

**Saturday, April 6, 2013**

**7:00-8:00am**      **Continental Breakfast for Conference Registrants**  
*(Ponce de Leon Foyer)*

**8:00 – 8:40am**      **PLENARY LECTURE 5: Tariq Rana, Ph.D.-** Sanford-Burnham Institute  
Title: Meeting Places for RNAi and Antiviral Defense Machine  
**Introduction: Marcus Kaul, Ph.D.-** Sanford-Burnham Institute

**8:40 -10:35am**      **SYMPOSIUM VI: Neuropathology of HIV-1 in an Aging Population**  
*Co-Chairs: Jeymohan Joseph, Ph.D.-* National Institute of Mental Health, Bethesda  
*Michal Toborek M.D., Ph.D.-* University of Miami School of Medicine

**8:40-8:45am**      **Introductory Remarks: Jeymohan Joseph, Ph.D.-** NIMH, NIH

**8:45-9:10am**      **Lecture 1: Gary Landreth, Ph.D.-** Case Western Reserve University, Cleveland, OH  
Title: Therapeutic approaches to amyloid clearance and improved cognitive function”

**9:10-9:35am**      **Lecture 2: Eliezer Masliah, Ph.D.-** University of California, San Diego  
Title: Autophagy and HIV-1 brain infection

**9:35-9:55am**      **Lecture 3: Valerie Wojna, M.D.-** University of Puerto Rico, San Juan, PR  
Title: HAND and Host Factors in Women on CART: Role of  $\beta$ -amyloid

**9:55-10:05am**      **Coffee Break**

**10:05-10:30am**      **Lecture 4: Lynn Pulliam, Ph.D.-** University of California, San Francisco  
Title: HIV regulation of amyloid beta production

**10:25-10:45am**      **Lecture 5: Ibolya Andras, M.D.-** University of Miami School of Medicine  
Title: HIV-1 induced amyloid beta accumulation in brain endothelial cells”

**10:50-10:55am**      **Concluding Remarks**

- 10:55-am 12:05**      **Symposium VII: Early Career Investigator Symposium**  
*Co-Chairs: Santosh Kumar, Ph.D.- UMKC*  
*Mike Nonemacher, Ph.D.- Drexel University, Philadelphia*
- 11:00-11:30am**      **Pre doctoral Presentations**
- Lecture 1: Ankit Shah, M.S.-** School of Pharmacy, Univ. of Missouri-Kansas City  
**Title:** HIV-1 protein gp120 and methamphetamine co-operate synergistically to increase oxidative stress in astrocytes: Role of cytochrome P450
- Lecture 2: Yu Zhou, M.S.-** Temple University School of Medicine  
**Title:** HCV infection and heroin use dysregulate the circulating miRNA expression
- Lecture 3: Sarah J. Bertrand, B.S.-** University of South Carolina  
**Title:** HIV-1 Tat/cocaine-induced synaptodendritic injury is prevented by estrogenic compounds
- 11:35-12:05pm**      **Post Doctoral Presentation**
- Lecture 1: Crystal Bethel-Brown, Ph.D.-** University of Nebraska Medical Center  
**Title:** Cooperative effects of HIV-1 Tat and ethanol on human brain endothelial cell permeability involves modulation of PDGF/PDGF-R axis
- Lecture 2: Fnu Ashutosh, Ph.D.–** Univ. of North Texas Health Science Center  
**Title:** A nanotechnology approach to protect human neurons from oxidative stress
- Lecture 3: J Ma, Ph.D –** Department of Surgery, University of Minnesota  
**Title:** Methamphetamine disrupts gut barrier function in a murine EcoHIV infection model
- 12:05-12:30pm**      **Lunch on your own**
- 12:30-1:30pm**      **Future Perspective – NeuroAIDS, Substance Abuse Think Tank**  
*Co-Chair: Yuri Persidsky, M.D., Ph.D.- Temple University, Philadelphia, PA*  
*Kendall Bryant, Ph.D.- NIAAA*
- 1:30 – 3:15pm**      **Symposium VIII: Local Host Symposium – HIV, Drug Abuse, and NeuroImmune Pharmacology Research in Puerto Rico**  
*Co-Chairs: Richard J. Noel Jr., Ph.D.- Ponce School of Medicine*  
*Loyda Melendez, Ph.D.- UPR - Medical Sciences Campus*
- 1:30-1:50pm**      **Lecture 1: Vanessa Rivera-Amill, Ph.D.-** Ponce School of Medicine  
**Title:** Integrated Behavioral Care Reduces Depressive Symptoms and Improves Psychological and Physical Health in HIV Patients.
- 1:50-2:10pm**      **Lecture 2: Annabell Segara Ph.D.-** UPR - Medical Sciences Campus  
**Title:** Sex steroids modulation of the behavioral response to cocaine.
- 2:10-2:30pm**      **Lecture 3: Steven Treistman, Ph.D.-** UPR - Neurobiology Institute  
**Title:** Molecular tolerance: Routes to drug adaptation viewed from the level of an individual channel protein"

**2:30-2:50pm**

**Lecture 4: Loyda Melendez, Ph.D.- UPR - Medical Sciences Campus**

Title: Cathepsin B and cystatin B in HIV infection and neurocognitive disorders.

**2:50-3:10pm**

**Lecture 5: Jose Lasalde, Ph.D.- UPR - Rio Piedras**

Title: The alpha7 nicotinic acetylcholine receptor in HIV: Potential implications to HIV-associated neurocognitive disorders and inflammation.

**3:10-3:15pm**

**Concluding Remarks**

**7:00 – 10:00pm**

**EVENING BANQUET AND AWARDS CEREMONY**

**Hosted by Howard Fox, M.D., Ph.D.- incoming SNIP President**

**Special Dinner Presentation: David Shurtleff, Ph.D.- NIDA, NIH**

**Meeting Adjourned!**

**Sunday, April 7, 2013**

**Departure Day**



**19<sup>th</sup> SNIP SCIENTIFIC  
CONFERENCE**

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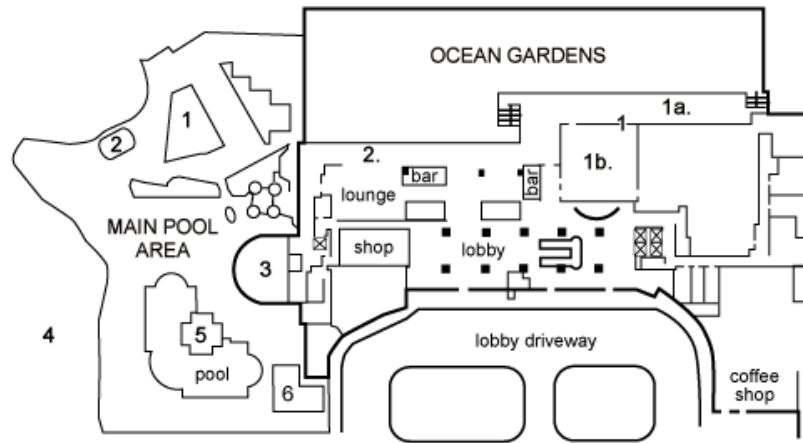
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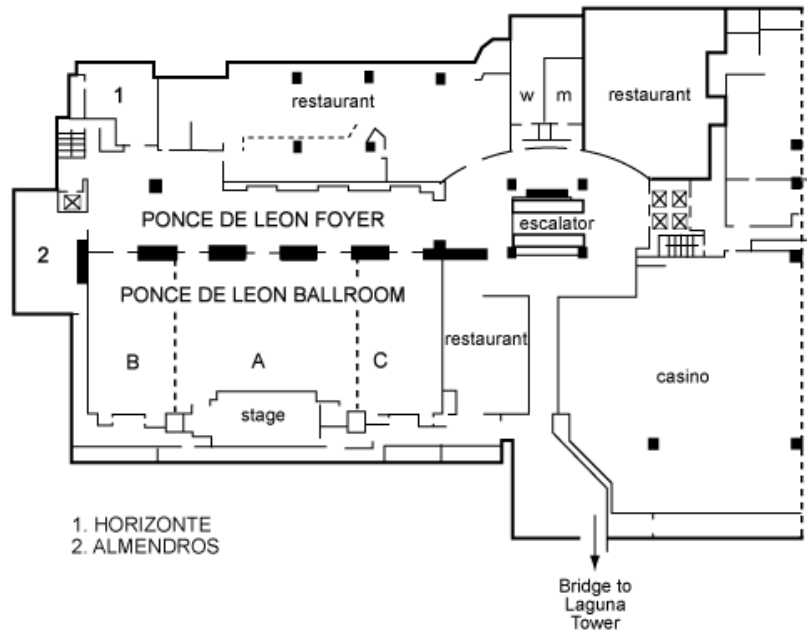


CONRAD SAN JUAN, CONDADO PLAZA  
OCEAN TOWER LOBBY LEVEL



- |                    |   |
|--------------------|---|
| 1. Salt Water Pool | 1. BRISAS DEL MAR AND<br>BRISAS DEL MAR TERRACE |
| 2. Jacuzzi         | 1a. BRISAS DEL MAR TERRACE                      |
| 3. Pool Restaurant | 1b. BRISAS DEL MAR                              |
| 4. Beach Area      | 2. ETERNAL TERRACE                              |
| 5. Pool Bar        |   |
| 6. Water Slide     |   |

CONRAD SAN JUAN, CONDADO PLAZA  
OCEAN TOWER MEZZANINE LEVEL



1. HORIZONTE  
2. ALMENDROS