



Society on Neuroimmune Pharmacology (SNIP)
25th Annual Scientific Conference
April 10 - 13, 2019, Portland, OR

LIST OF POSTER ASSIGNMENTS

Posters should be max. 45 inches high and 90 inches wide.

Posters – Wednesday, April 10th, 2019

W01 Development of Nanodiamond-based Anti-HIV Drug Delivery Targeted to the Brain

Abshier, J, BS¹, Roy, U, Ph.D.¹, Drozd, V, Ph.D.², Mito, S, Ph.D.³; ¹Department of Health & Biomedical Sciences, The University of Texas Rio Grande Valley, Brownsville, TX, 78520 United States. ²Center for the Study of Matter at Extreme Conditions, Florida International University, Miami, FL, 33174 United States. ³Department of Chemistry, The University of Texas Rio Grande Valley, Edinburg, TX, 78539 United States.

W02 Role of aurora kinase A and endolysosomes in Alzheimer's disease

Afghah, Zahra, MS¹, Jonathan D. Geiger, JD, Ph.D.¹, Xuesong Chen, XC, MD, Ph.D.¹; ¹Biomedical Sciences, University of North Dakota, Grand Forks, ND, 58203 United States.

W03 Evaluating a broad-spectrum guide RNA to inactivate HIV-1 LTR-driven transcription

Allen, AGA, BS¹, Worell, SDW¹, Nwaozo, GCN¹, Sullivan, NTS, Ph.D.¹, Dampier, WD, Ph.D.¹, Homan, GH¹, Pirrone, VP, Ph.D.¹, Passic, SP, MS¹, Williams, JW¹, Nonnemacher, MRN, Ph.D.¹, Wigdahl, BW, Ph.D.¹; ¹Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, 19102 United States.

W04* Validation of in silico predictions for gRNA specificity targeting HIV-1 proviral sequences using unbiased detection of CRISPR/Cas9 cleavage events

Atkins, AJA, Ph.D.¹, Dampier, WD, Ph.D.¹, Sullivan, NS, Ph.D.¹, Chung, CC, MS¹, Passic, SP, MS¹, Williams, JW, MS¹, Mell, JM, Ph.D.¹, Homan, GH, MS¹, Lang, SL, BS¹, Pirrone, VP, Ph.D.¹, Szep, ZS, MD², Jacobson, JJ, Ph.D.³, Nonnemacher, MRN, Ph.D.¹, Wigdahl, BW, Ph.D.¹; ¹Microbiology and Immunology, Drexel College of Medicine, Philadelphia, PA, 19102 United States. ²Center for Clinical and Translational Medicine, Institute for Molecular Medicine and Infectious Disease, Drexel College of Medicine, Philadelphia, PA, 19102 United States. ³Department of Neuroscience and Comprehensive NeuroAIDS Center, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, 19140 United States.

W05 PERK Haplotype Functions in HIV-Associated Neurocognitive Disorders

Bond, S, BS¹, Stutzbach, L, Ph.D.³, Gannon, P, Ph.D.⁴, Akay-Espinoza, C, MD², Jordan-Sciutto, K, Ph.D.²; ¹Department of Biochemistry and Biophysics, University of Pennsylvania-Perelman School of Medicine, Philadelphia, PA, 19104 United States. ²Department of Pathology, University of Pennsylvania-School of Dental Medicine, Philadelphia, PA, 19104 United States. ³Department of Neuroscience, University of Pennsylvania-Perelman School of Medicine, Philadelphia, PA, 19104 United States. ⁴Department of Pharmacology, University of Pennsylvania-Perelman School of Medicine, Philadelphia, PA, 19104 United States.

W06* Development of exosomal extracellular vesicles (xEVs) as therapeutic nanocarriers targeting HIV neuropathology and opioid abuse.

Caobi, Allen, BS¹, Tomitaka, AT, Ph.D.¹, Nikkhah-Moshaie, RN, Ph.D.¹, Hernandez, AFH, Ph.D.¹, Yndart, AY, BS¹, Nair, MN, Ph.D.¹, Raymond, ADR, Ph.D.¹; ¹Department of Immunology and Nanomedicine, Florida International University, MIAMI, FL, 33199 United States.

W07* HIV-Tat Protein Modulates Cognitive Performance through Induction of Hyperglutamatergic Signaling in Brain

Cirino, TJ, BS¹, Simons, C, BS¹, Stacy, H¹, Eans, S, MS¹, Nefzi, M¹, Wallman, O¹, Hartzy, L¹, Bunnell, A¹, Kendrick, J¹, Pei, J, MS¹, Harden, S, Ph.D.¹, Frazier, C, Ph.D.¹, McLaughlin, J, Ph.D.¹;
¹Pharmacodynamics, University of Florida, Gainesville, FL, 32610 United States.

W08 Pharmacologic Inhibition of Cell-Associated and Exosomal P38 Mitogen-Activated Protein Kinase from Astrocyte Cells Exposed to Tumor Necrosis Factor-alpha

Collazo-Rodriguez, BJ, BS^{1*}, Alvarez-Del Valle*, J, BS¹, Morales, D, BS¹, Ortiz, K², Ortiz, R², Revilla, R², Ruiz, R, MS¹, Wojna, V, MD³, Gerena, Y, Ph.D.¹; ¹Pharmacology and Toxicology Department, University of Puerto Rico, Medical Sciences Campus, San Juan, PR, 00936-5067 United States. ²Biology Department, University of Puerto Rico, Rio Piedras Campus, San Juan, PR, 00936-5067 United States. ³Neurology Division, University of Puerto Rico, Medical Sciences Campus, San Juan, PR, 00936-5067 United States.

W09 Mechanism of HIV CNS Damage Mediated by Lipids

D'Amico, D, MS¹, Prideaux, B, Ph.D.¹, Eugenin, EA, Ph.D.¹; ¹Department of Neuroscience, Cell Biology and Anatomy, University of Texas Medical Branch, Galveston, TX, 77555 United States.

W10 CRISPR-Cas9 mediated disruption of ALCAM gene in uninfected and HIV+ myeloid cells inhibits their adhesion to endothelial cells

Dabrowski, K, BS¹, Luongo, FP, MS¹, Ebo, S¹, Nawrat, D¹, Young, WB, Ph.D.¹, Kaminski, R, Ph.D.¹;
¹Center for Neurovirology/Department of Neuroscience, Lewis Katz School of Medicine at Temple University, Philadelphia, PA, 19140 United States.

W11 HIV Tat protein induced TGF-beta suppresses CFTR biogenesis and activity by microRNA mediated gene silencing

Dutta, RK, MS¹, Chinnapaiyan, S, Ph.D.¹, Nair, M, Ph.D.¹, Unwalla, H, Ph.D.¹; ¹Department of Immunology and Nano-Medicine, Florida International University, Miami, FL, 33199 United States.

W12 Astrocyte HIV-1 Proviral Reservoirs in HAND

Edara, VVC, MS¹, Ghorpade, A, Ph.D.¹; ¹Department of Microbiology, Immunology and Genetics, University of North Texas Health Science Center, Fort Worth, TX, 76107 United States.

W13 Interactions between nicotine and antiretrovirals in an in vitro model of HIV-induced neurotoxicity.

Ghura, S, MS¹, Jordan-Sciutto, K, Ph.D.², Akay-Espinoza, C, MD²; ¹Pharmacology Graduate Group, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, 19104 United States. ²Department of Pathology, School of Dental Medicine, University of Pennsylvania, Philadelphia, PA, 19104 United States.

W14* Novel elvitegravir nanoformulation for drug delivery across the blood-brain barrier to achieve HIV-1 suppression in the CNS

Gong, Y¹, Chowdhury, P¹, Nagesh, PKB¹, Sinha, N¹, Hatami, E¹, Rahman, MA¹, Chen, H², Yallapu, MM¹, Kumar, S¹; ¹Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN, 38163 United States. ²Department of Pharmacology, University of Tennessee Health Science Center, Memphis, TN, 38163 United States.

W15* Efficacy studies of Magneto-electric nanoparticle bound Cas9/gRNA/Naltrexone to treat opioid addiction and neuroAIDS

Gupta, P, Ph.D.¹, Atluri, V, Ph.D.¹, Kaushik, A, Ph.D.¹, Yndart, A, BS¹, Khalili, K, Ph.D.², Nair, M, Ph.D.¹;
¹Department of Immunology, Herbert Wertheim College of Medicine, Miami, FL, 33199 United States. ²Department of Neuroscience, Lewis Katz School of Medicine, Philadelphia, PA, 19140 United States.

W16 Morphine-induced iron release from endolysosomes is sufficient to cause reactive oxygen species production and mitochondrial dysfunction

Halcrow, PH, MS¹, Lakpa, LL, BS¹, Khan, NK, Ph.D.¹, Meucci, OM, MD, Ph.D.², Geiger, JG, Ph.D.¹;
¹Department of Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND, 58203 United States. ²Dept. of Pharmacology and Physiology, Drexel University College of Medicine, Philadelphia, PA, 19103 United States.

W17 The effects of retinoic acid and drugs of abuse on enteric glial cells

Johnson, SD, BS¹, Knight, LA, MS², Panday, K, MS², Byrareddy, SN, Ph.D.²; ¹Department of Pathology and Microbiology, University of Nebraska Medical Center, Omaha, NE, 68198 United States. ²Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

W18 PET imaging of 11C-UCB-J and 11C-JHU75528 ligands indicate synaptic decline and increased levels of CB1R expression in HIV-1 Tat transgenic mice

Key, MC, BS¹, Yuan, H, Ph.D.², Li, Z, Ph.D.³, Hermes, DJ, MS⁴, Jacobs, IR, MS⁴, League, AF, BS⁴, Mackie, K, MD⁵, Lichtman, AH, Ph.D.⁶, Ignatowska-Jankowska, BM, Ph.D.⁷, Fitting, S, Ph.D.⁴; ¹Curriculum in Neuroscience, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599 United States. ²Biomedical Research Imaging Center, Department of Radiology, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599 United States. ³Biomedical Research Imaging Center, Department of Radiography, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599 United States. ⁴Department of Psychology & Neuroscience, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599 United States. ⁵Department of Psychological & Brain Sciences, Indiana University, Bloomington, IN, 47405 United States. ⁶Department of Pharmacology & Toxicology, Virginia Commonwealth University, Richmond, VA, 23298 United States. ⁷Neuronal Rhythms in Movement Unit, Okinawa Institute of Science and Technology, Okinawa, Okinawa, 904-0412 Japan.

W19 Histaminergic Dysregulation in the HIV-1 Transgenic Rat: Implications for HIV- Associated Neurocognitive Disorder

Kirchner, Kristin, BS¹, Denton, AR, BS¹, Mactutus, CF, Ph.D.¹, Harrod, SB, Ph.D.¹, Booze, RM, Ph.D.¹; ¹Department of Psychology, University of South Carolina, Columbia, SC, 29208 United States.

W20 HIV-1 gp120-induced endolysosome deacidification causes endolysosome iron release and increased levels of reactive oxygen species

Lakpa, KL, BS¹, Halcrow, P, MS¹, Khan, N, Ph.D.¹, Miller, N, BS¹, Afghah, Z, MS¹, Datta, G, Ph.D.¹, Chen, X, MD, Ph.D.¹, Geiger, JD, Ph.D.¹; ¹Biomedical Sciences, University of North Dakota, Grand Forks, ND, 58203 United States.

W21 MJN110 Therapeutic Potential Against HIV-1 Tat-induced Neurotoxicity In Vitro

League, AF¹, Hermes, DJ¹, Johnson, CT¹, Key, MC², Niphakis, MJ³, Cravatt, BF³, Mackie, K⁴, Lichtman, AH⁵, Ignatowska-Jankowska, BM⁶, Fitting, S¹; ¹Department of Psychology & Neuroscience, University of North Carolina Chapel Hill, Chapel Hill, NC, 27599 United States. ²Curriculum in Neuroscience, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599 United States. ³Department of Chemistry, Scripps Research Institute, La Jolla, CA, 92037 United States. ⁴Department of Psychological & Brain Sciences, Indiana University, Bloomington, IN, 47405 United States. ⁵Department of Pharmacology & Toxicology, Virginia Commonwealth University, Richmond, VA, 23284 United States. ⁶Neuronal Rhythms in Movement Unit, Okinawa Institute of Science and Technology, Okinawa, Japan, n/a Japan.

W22* Changes of TLR3 Signaling Activation during Astroglial Differentiation

LIU, H, MS¹, ZHOU, R.H., Ph.D.¹, GUO, L., Ph.D.¹, WANG, X., Ph.D.², HU, S.X., Ph.D.³, ZHOU, Y., Ph.D.², LI, J.L., Ph.D.², HO, W.Z., MD, M.Ph.²; ¹School of Basic Medical Sciences, Wuhan University, Wuhan, Hubei, 430071 China. ²Department of Pathology and Laboratory Medicine, Temple University Lewis Katz School of Medicine, Philadelphia, PA, 19140 United States. ³Neurovirology Laboratory, Department of Medicine, University of Minnesota Medical School, Minneapolis, MN, 55455 United States.

W23 Methamphetamine Enhances HIV Infection of Human Monocytes

Liu, Y, MS¹, Liu, Y, MS¹, Wang, X, MS², Zhang, B, MS¹, Huang, A, BS², Xu, XQ, MS¹, Meng, FZ, MS¹, Liu, H, MS¹, Hu, WH, MD, Ph.D.², Ho, WZ, MD, M.Ph.²; ¹School of Basic Medical Sciences, Wuhan University, Wuhan, Hubei, 430071 China. ²Department of Pathology and Laboratory Medicine, Temple University of Lewis Katz School of Medicine, Philadelphia, PA, 19140 United States.

W24 In vitro validation of CRISPR-Cas9 mediated targeting of transgene integration sites to excise HIV-1 sequences from HIV-1 Tg rat

Luongo, FP, MS¹, Dabrowski, K, BS¹, Huang, W², Mack, M², Mactutus, CF, Ph.D.³, Booze, RM, Ph.D.³, Chang, SL, Ph.D.², Kaminski, R, Ph.D.¹; ¹Center for Neurovirology/Department of Neuroscience, Lewis

Katz School of Medicine at Temple University, Philadelphia, PA, 19140 United States. ²Institute of Neuroimmune Pharmacology/Department of Biological Sciences, Seton Hall University, South Orange, NJ, 07079 United States. ³Program in Behavioral Neuroscience/Department of Psychology, University of South Carolina, Columbia, SC, 29208 United States.

W25* Effect of HIV-1 Tat-induced senescence on astrocytes and BMECs in a blood-brain barrier model

Marino, JMM, MS¹, Lawrence, JL, BS¹, Cohen, JC, Ph.D.², Wigdahl, BW, Ph.D.¹, Torres, CT, Ph.D.², Nonnemacher, MRN, Ph.D.¹; ¹Microbiology and Immunology, Drexel College of Medicine, Philadelphia, PA, 19102 United States. ²Center for Molecular Virology and Translational Neuroscience, Drexel University College of Medicine, Philadelphia, PA, 19102 United States.

W26* Role of dopamine-mediated conformational changes of CCR5 in HIV infection of macrophages

Matt, SM, Ph.D.¹, Gaskill, PJ, Ph.D.¹, Rong, Y, BS¹; ¹Department of Pharmacology and Physiology, Drexel University, Philadelphia, PA, 19102 United States.

W27* S-EQUOL RESTORES THE DEVELOPMENTAL TRAJECTORY OF TEMPORAL PROCESSING IN THE HIV-1 TRANSGENIC RAT

McLaurin, KA, MS¹, Booze, RM, Ph.D.¹, Mactutus, CF, Ph.D.¹; ¹Department of Psychology, University of South Carolina, Columbia, SC, 29208 United States.

W28 Examining unique naturally occurring HIV-1 Tat truncations obtained from patient peripheral blood samples in the Drexel Medicine CARES cohort

Mele, AR, BS¹, Link, RW, BS¹, Antell, GC, Ph.D.¹, Pirrone, V, Ph.D.¹, Passic, S, MS¹, Szep, Z, MD², Malone, K, MS², Jacobson, J, MD³, Dampier, W, Ph.D.¹, Wigdahl, B, Ph.D.¹, Nonnemacher, MR, Ph.D.¹; ¹Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, 19102 United States. ²Center for Clinical and Translational Medicine, Institute for Molecular Medicine and Infectious Disease, Philadelphia, PA, 19102 United States. ³Department of Neuroscience and Comprehensive NeuroAIDS Center, Temple University, Philadelphia, PA, 19104 United States.

W29 Ferritin accumulation in brains of HIV-1 associated neurocognitive disorder

Miller, NM, BS¹, Swinton, MS, Ph.D.², Fields, JF, Ph.D.², Geiger, JG, Ph.D.¹, Xuesong, CX, Ph.D.¹; ¹Department of Biomedical Sciences, University of North Dakota, Grand Forks, ND, 58203 United States. ²Department of Psychiatry, University of California San Diego, La Jolla, CA, 92093 United States.

W30 Dopamine modulates HIV entry into macrophages via Gq-dependent signaling mechanisms

Nickoloff-Bybel, E, MS¹, Mackie, P, BS², Runner, K, BS¹, Khoshbouei, H, Ph.D.², Gaskill, PJ, Ph.D.¹; ¹Department of Pharmacology and Physiology, Drexel University, Philadelphia, PA, 19102 United States. ²Department of Neuroscience, University of Florida, Gainesville, FL, 32610 United States.

W31 Role of dopamine in the modulation of macrophage-mediated inflammation: implications for NeuroHIV and drug abuse

Nolan, RA, MS¹, Runner, K, MS¹, Rong, Y, BS¹, Gaskill, PJ, Ph.D.¹; ¹Department of Pharmacology and Physiology, Drexel University College of Medicine, Philadelphia, PA, 19102 United States.

W32* The blood-brain barrier is dysregulated in the hippocampus of meth self-administering HIV-1 transgenic rats

Ohene-Nyako, M, MS¹, Persons, AL, Ph.D.¹, Napier, TC, Ph.D.¹; ¹Pharmacology, Rush University Medical Center, Chicago, IL, 60612 United States.

W33 Lipocalin-2 deficiency protects against neuronal damage and behavioral deficits in a CCR5 dependent manner in a transgenic model of HIV-induced brain injury

Ojeda-Juárez, D, BS², Shah, RL, BS¹, Maung, R, BS¹, Sanchez, AB, Ph.D.³, Roberts, AJ, Ph.D.⁴, Kaul, M, Ph.D.¹; ¹School of Medicine, Division of Biomedical Sciences, University of California, Riverside, Riverside, CA, 92507 United States. ²Infectious and Inflammatory Disease Center, Sanford Burnham Prebys Medical Discovery Institute, La Jolla, CA, 92037 United States. ³Department of Psychiatry, University of California San Diego, San Diego, CA, 92093 United States. ⁴Neurosciences Department, The Scripps Research Institute, La Jolla, CA, 92307 United States.

W34 Toll-like receptor 3 regulates Zika virus infection and associated host inflammatory response in primary human astrocytes

Ojha, CR, MS¹, Rodriguez, M, Ph.D.¹, Muthu Karuppan, MK, Ph.D.¹, Lapierre, J, Ph.D.¹, Kashanchi, F, Ph.D.², El-Hage, N, Ph.D.¹; ¹Department of Immunology and nanomedicine, Florida International University, Miami, FL, 33174 United States. ²National Center for Biodefense and Infectious Diseases, George Mason University, Manassas, VA, 20110 United States.

W35* Retinoic Acid (RA) enhances the Recovery of Replication Competent Virus from Latent SIV infected cells by activating α 4 β 7-expressing cells

Omalla Allan Olwenyi, OAO, MS¹, Siddappa Byrareddy, SB, Ph.D.¹; ¹Department of Pharmacology and Experimental Neuro Science, UNMC, Omaha, NE, 68105 United States.

W36 Neuroimmune Consequences of Heroin Withdrawal on Stress Enhanced Fear Learning

Parekh, S.V., BS¹, Paniccia, J.E.¹, Lebonville, C.L.¹, DeBruyne, N.G.¹, Lysle, D.T., Ph.D.¹; ¹Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599 United States.

W37* Poly-lactic-glycolic-acid (PLGA) mediated gene delivery to astrocytes requires arginine modified poly-ethyl-imine (PEI) polymer to facilitate gene expression

Proulx, J., BS¹, Joshi, C., Ph.D.³, Labhasetwar, V., Ph.D.², Ghorpade, A., Ph.D.¹; ¹Department of Microbiology, Immunology, and Genetics, University of North Texas Health Science Center, FORT WORTH, TX, 76107 United States. ²Department of Biomedical Engineering, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, 44195 United States. ³Department of Neurology and Neurotherapeutics, University of Texas Southwestern Medical Center, Dallas, TX, 75390 United States.

W38 Metformin Enhanced HIV Gene Expression and Production

Rezaei, S, MS¹, He, J, Ph.D.¹; ¹Department of Microbiology, Immunology & Genetics, University of North Texas Health Science Center, Fort Worth, TX, 76107 United States.

W39 Beta adrenergic receptor blockage inhibit inflammation caused by the HIV-1 protein Nef

Rivera, J, MS¹, Cruz, M, BS¹, Noel, R, Ph.D.¹; ¹Biochemistry, Ponce Health Science University, Ponce, PR, 00732 United States.

W40 Drug Resistance Mutations Insight on HIV-1 Patients from Haiti using Genotypic and Phylogeny Analysis

Rodriguez-López, E, BS¹, López, P¹, Rodriguez, Y¹, Zorrilla, C, MD¹, Rivera-Amill, V, Ph.D.¹; ¹AIDS Research Program Infrastructure, Ponce Health Sciences University, Ponce, PR, 00716 United States.

W41 CB2R agonist, JWH-133, decreases HIV/MDM-induced CATB release and neuronal death

Rosario-Rodríguez, LJ, BS¹, Cuadrado, J², Cartagena, L³, Meléndez, LM¹; ¹Department of Microbiology & Medical Zoology, University of Puerto Rico-Medical Sciences Campus, San Juan, PR, 00936 Puerto Rico. ²Department of Biology, University of Puerto Rico-Bayamón Campus, Bayamón, PR, 00959-1919 Puerto Rico. ³Department of Chemistry, University of Puerto Rico-Río Piedras Campus, San Juan, PR, 00931-3353 Puerto Rico.

W42 Mechanisms of white matter loss due to antiretroviral, elvitegravir

Roth, L.M., BS³, Zidane, B.², Festa, L., Ph.D.², Putatunda, R., Ph.D.¹, Romer, M., BS¹, Grinspan, J.B., Ph.D.¹, Jordan-Sciutto, K.L., Ph.D.²; ¹Neurology, Children's Hospital of Philadelphia, Philadelphia, PA, 19104 United States. ²Pathology, School of Dental Medicine University of Pennsylvania, PHILADELPHIA, PA, 19104 United States. ³Pharmacology, University of Pennsylvania, Philadelphia, PA, 19104 United States.

W43* Role of extracellular vesicles in HIV-1 and methamphetamine induced neurotoxicity

Shahjin, Farah¹, Moore, D, MS¹, DeMarino, C, Ph.D.², Kashanchi, F, Ph.D.², Yelamanchili, SV, Ph.D.¹; ¹Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States. ²School of Systems Biology, George Mason University, Manassas, VA, 20110 United States.

W44* Effect of IFNAR1 Deficiency on Neuronal and Astrocytic Cell Marker

Singh, H, Ph.D.¹, Maung, R, BS¹, Ojeda-Juarez, D, BS², Shah, R, BS¹, Kaul, M, Ph.D.¹; ¹Division of Biomedical Sciences, School of Medicine, University of California, Riverside, Riverside, CA, 92507 United States. ²Infectious and Inflammatory Disease Center, Sanford Burnham Prebys Medical Discovery Institute, La Jolla, CA, 92037 United States.

W45 Expression of HIV-1 Tat in transgenic mice decreases [3H] dopamine uptake via both dopamine and norepinephrine transporters in the prefrontal cortex

Strauss, MJ¹, O'Donovan, BO, Ph.D.², Ortinski, P, Ph.D.², McLaughlin, JP, Ph.D.³, Zhu, J, MD, Ph.D.¹; ¹Department of Drug Discovery and Biomedical Sciences, University of South Carolina, Columbia, SC, 29209 United States. ²Department of Physiology, Pharmacology, and Neuroscience, University of South Carolina, Columbia, SC, 29202 United States. ³Department of Pharmacodynamics, University of Florida, Gainesville, FL, 32601 United States.

W46 Plasma Biomarkers as Indicators for Neurocognitive Impairment in HIV+ Individuals

Swanta, N, BS¹, Aryal, S, Ph.D.¹, Borgmann, K, Ph.D.¹, Ghorpade, A, Ph.D.¹; ¹Microbiology, Immunology and Genetics, University of North Texas Health Science Center, Fort Worth, TX, 76107 United States.

W47 HIV Infects Platelets in Treatment Naïve Viremic Patients

Sydney, S¹, Maggirwar, S, Ph.D.¹, Singh, M¹; ¹Department of Microbiology and Immunology, University of Rochester, Rochester, NY, 14624 United States.

W48 Molecular Dynamics of amyloid- β protein binding with the potential neuroprotectant, Withaferin A

Tiwari, Sneham, MS¹, Nair, M, Ph.D.¹; ¹Department of Immunology and Nano-medicine, HWCUM, Florida International University, Miami, FL, 33199 United States.

W49* HIV alters Occludin-Alix-Cav-1 interactions in human brain vascular pericytes

Torices, S, Ph.D.¹, Park, M, Ph.D.¹, A, Roberts, S, MS¹, Skowronska, M, Ph.D.¹, Toborek, M, MD, Ph.D.¹; ¹Department of Biochemistry and Molecular Biology, University of Miami Miller School of Medicine, Miami, FL, 33136 United States.

W50 Correlation of Serum Estradiol 17- β with HIV-infection and Cathepsin B Secretion in Macrophages

Velez Lopez, Omar¹, Melendez, L.M., Ph.D.¹, Segarra Marrero, A., Ph.D.², Rosario-Rodriguez, L., BS¹; ¹Department of Microbiology and Zoology, University of Puerto Rico Medical Sciences Campus, San Juan, PR, 00921 United States. ²Department of Physiology, University of Puerto Rico Medical Sciences Campus, San Juan, PR, 00921 United States.

W51 Exosomes Transport Anti-HIV Factors from Human Cervical Epithelial Cells to Macrophages

Xu, XQ, MS¹, Zhang, B, MS¹, Guo, L, MS¹, Liu, Y, MS¹, Wang, X, Ph.D.², Liu, JB, Ph.D.¹, Ho, WZ, MD, Ph.D.²; ¹Wuhan University, School of Basic Medical Sciences, Wuhan, Hubei, 430071 China. ²Temple University, Department of Pathology and Laboratory Medicine, Philadelphia, PA, 19140 United States.

W52 Cytosolic DNA Sensors Activation Inhibits HIV Infection in Macrophages

Zhang, B, MS¹, Liu, Y, MS¹, Wang, X, MS², Xu, X.Q., MS¹, Liu, H, MS¹, Ho, W.Z., MD, M.Ph.²; ¹School of Basic Medical Sciences, Wuhan University, Wuhan, Hubei, 430071 China. ²Department of Pathology and Laboratory Medicine, Temple University Lewis Katz School of Medicine, Philadelphia, PA, 19140 United States.

Late Breaking Abstracts & Posters – Wednesday

W53 Impact of pharmacological activation of glycolytic enzyme pyruvate kinase isoform M2 (PKM2) on HIV replication in macrophages.

Datta, Prasun, Ph.D.¹, Deshmane, S, Ph.D.¹, Amini, S, Ph.D.¹, Bansal, S, BS¹; ¹Neuroscience/Center for Comprehensive NeuroAIDS, Lewis Katz School of Medicine, Philadelphia, PA, 19140 United States.

W54 The Integrated National NeuroAIDS Tissue Consortium: A Rich Platform for HIV Research

Fox, HS, MD, Ph.D.¹, Dye, AC, BS¹, Le, D, BS¹, Heithoff, AJ, MS¹; ¹Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

W55 Itaconic and Glutaconic Acid Effects on Neuronal Dendritic Spine Morphology in the Rat Medial Prefrontal Cortex and Nucleus Accumbens: Translational Results of a Metabolomic Study of HIV-Associated Neurocognitive Disorder

Kallianpur, A. R., MD, M.Ph.¹, Li, H., Ph.D.², McLaurin, K. A., BS², Heaton, R. K., Ph.D.³, Letendre, S. L., MD⁴, Mactutus, C. F., Ph.D.², Booze, R. M., Ph.D.²; ¹Department of Genomic Medicine, Cleveland Clinic/Lerner Research Institute, Cleveland, OH, 44195 United States. ²Department of Psychology, University of South Carolina, Columbia, SC, 29208 United States. ³Department of Psychiatry, University of California-San Diego, San Diego, CA, 92093 United States. ⁴Department of Medicine, University of California-San Diego, San Diego, CA, 92103 United States.

W56 CANNABIS USE AND CLINICALLY SIGNIFICANT IMBALANCE IN PEOPLE LIVING WITH HIV

Patrick, PK, MD¹, Grelotti, DG, MD¹, Moore, RM, MD, Ph.D.¹, Bharti, AB, MD¹, Ellis, RE, MD¹; ¹Interdisciplinary Research Fellowship in NeuroAIDS, University of California San Diego, San Diego, CA, 92103 United States.

W57 Collaborating Consortium of Cohorts Producing NIDA Opportunities (C3PNO): A Data and Biospecimen Resource for Researchers

Gorbach, PM, Ph.D.¹, Ragsdale, AE, MS¹, Javanbakht, M, Ph.D.¹, Siminski, S, MS², Kim, S, Ph.D.²; ¹Fielding School of Public Health/Department of Epidemiology, University of California Los Angeles, Los Angeles, CA, 90095 United States. ²Data Coordinating Center, Frontier Science, Amherst, NY, 14226 United States.

W58 Perkin Elmer Poster 1

Posters - Thursday, April 11th, 2019

T01* Inhibition of the DEAD Box RNA Helicase 3 prevents HIV-1 Tat- and cocaine-induced neurotoxicity by targeting microglia activation

Aksenova, M, Ph.D.¹, Cui, B, BS¹, Sybrand, J, MS², Ji, H, MS¹, Odhiambo, D¹, Lucius, M, BS¹, Zhu, J, MD, Ph.D.¹, Wyatt, MD, Ph.D.¹, Safro, I, Ph.D.², Shtutman, M, Ph.D.¹; ¹Department of Drug Discovery and Biomedical Sciences, College of Pharmacy, University of South Carolina, Columbia, SC, 29208 United States. ²School of Computing, Clemson University, Clemson, SC, 29634 United States.

T02* Characterization of differential monocyte subtype responses in cocaine-induced neuroinflammation

Andrews, AM, Ph.D.¹, Cannella, LA, MS¹, McGary, H, BS¹, Ramirez, SH, Ph.D.¹; ¹Department of Pathology & Laboratory Medicine, Temple University, Philadelphia, PA, 19140 United States.

T03 ADAPTIVE WORKING MEMORY TRAINING ON COGNITIVE PERFORMANCE IN HIV-1 PATIENTS

Bailey MD, MPH^{1,2}, Løhaugen G, Ph.D.^{3,4}, Hanna-Pladdy B, Ph.D.², Liang H, MBBS, Ph.D.², Chang L, MD^{2,5,6}, ¹ Department of Epidemiology and Public Health, University of Maryland School of Medicine, Baltimore, MD, USA. ² Department of Diagnostic Radiology and Nuclear Medicine, University of Maryland School of Medicine, Baltimore, MD, USA. ³ Department of Clinical and Molecular Medicine, Norwegian University of Science and Technology, Trondheim, Norway. ⁴ Department of Pediatrics, Sorlandet Hospital HF, Arendal, Norway. ⁵ Department of Neurology, University of Maryland School of Medicine, Baltimore, MD, USA. ⁶ Department of Neurology, Johns Hopkins University School of Medicine, Baltimore, MD, USA.

T04 Astrocyte-derived HIV evolution in humanized mice

Barbian, HJ, Ph.D.¹, Lutgen, V, Ph.D.¹, Narasipura, SD, Ph.D.¹, Al-Harhi, L, Ph.D.¹; ¹Microbial Pathogens and Immunity, Rush University Medical Center, Chicago, IL, 60612 United States.

T05 Stable histone modifications in post-mortem brain tissue can help overcome quality issues for identifying neuroHIV signatures

Basova, L, Ph.D.¹, Lindsey, A, MS¹, Marcondes, MC, Ph.D.¹; ¹Neuroimmunology, San Diego Biomedical Research Institute, San Diego, CA, 92121 United States.

T06 Role of Microglia-specific p38 signaling in NeuroAIDS

Bhullar, Deepika, Ph.D.¹, Maung, Ricky¹, Irfan, Uroosa¹, Ojeda-Juarez, Daniel¹, Kaul, Marcus, Ph.D.¹; ¹School of Medicine, Biomedical Sciences, University of California, Riverside, Riverside, CA, 92521-0001 United States.

T07 Gene editing strategies in the HIV-1 Tg rat brain: functional outcomes

Booze, RM¹, Chang, SL², Kaminski, R³, Mactutus, CF¹; ¹Department of Psychology, University of South Carolina, Columbia, SC, 29223 United States. ²Institute of NeuroImmune Pharmacology, Seton Hall, South Orange, NJ, 07079 United States. ³Department of Neuroscience, Temple University, Philadelphia, PA, 19140 United States.

T08* Epigenetic Therapy Approach in HIV-mediated Neurocognitive Impairment in Mice

Borjabad, Alejandra, Ph.D.¹, Wang, H, Ph.D.¹, Chao, W¹, Kim, BH, Ph.D.¹, Kelschenbach, J, Ph.D.¹, Murray, J, Ph.D.², Morgello, S, Ph.D.², Volsky, DJ, Ph.D.¹; ¹Department of Medicine, Icahn School of Medicine at Mount Sinai, New York, NY, 10029 United States. ²Department of Neurology, Icahn School of Medicine at Mount Sinai, New York, NY, 10029 United States.

T09 Membrane bound chemokines permit vesicle transduction in Jurkat cells

Campbell, LA, Ph.D.¹, Richie, CT, Ph.D.¹, Henderson, L, Ph.D.², Nath, A, Ph.D.², Harvey, BK, Ph.D.¹; ¹Molecular Mechanisms of Cellular Stress and Inflammation, National Institute on Drug Abuse, Baltimore, MD, 21224 United States. ²Section on Infections of the Nervous System, National Institute on Neurological Disorders and Stroke, Bethesda, MD, 20814 United States.

T10 HIV sensory neuropathy related behaviors in doxycycline inducible HIV-1 Tat transgenic mice

Cao, Ling¹; ¹Biomedical Sciences Department, College of Osteopathic Medicine, University of New England, Biddeford, ME, 04005 United States.

T11 HIV-1 Nef-EVs and morphine exert synergistic effects on alternative splicing of OPRM1 at both molecular and cellular levels

Chang, SL, Ph.D.², Yarandi, S, MS¹, Huang, W, BS², Sariyer, IK, Ph.D.¹; ¹Department of Neuroscience and Center for Neurovirology, Temple University Lewis Katz School of Medicine, Philadelphia, PA, 19144 United States. ²Institute of NeuroImmune Pharmacology and Department of Biological Sciences, Seton Hall University, South Orange, NJ, 07079 United States.

T12 Chronic treatment of Triumeq induces neuronal hyperactivity and over-activation of voltage-gated ca²⁺ channels in the medial prefrontal cortex of rats

Chen, L, Ph.D.¹, Al-Harathi, L, Ph.D.¹, Hu, X-T, MD, Ph.D.¹; ¹Department of Microbial Pathogens and Immunity, Rush University Medical Center, CHICAGO, IL, 60612 United States.

T13* Combinatorial effects of HIV Tat and cocaine-mediated activation of microglial NLRP3: Implications for NeuroHIV

Chivero, ET, Ph.D.¹, Thangaraj, A, Ph.D.¹, Guo, ML, Ph.D.¹, Buch, S, Ph.D.¹; ¹Pharmacology & Experimental Neuroscience, UNMC, Omaha, NE, 68198 United States.

T14 17 alpha-Estradiol is a protective factor in HIV-1 gp120 induced neuronal dystrophy

Datta, Gaurav, Ph.D.¹, Halcrow, Peter¹; ¹School of Medicine and Health Sciences, University of North Dakota, Grand Forks, ND, 58203 United States.

T15 Reverse Transcriptase Inhibitors Alter Mitochondrial Biogenesis and Inflammation in Neurons and Glia

Fields, JA, Ph.D.¹, Swinton, MS, BS¹, Carson, A, BS¹, Sanchez, A, Ph.D.¹, Soontornniyomkij, B, Ph.D.¹, Shambwani, S¹, Frizzi, K, MS¹, Han, M, BS¹, Achim, CL, MD, Ph.D.¹, Calcutt, N, Ph.D.¹; ¹Department of Psychiatry, University of California, San Diego, La Jolla, CA, 92093 United States.

T16 Role of purines and purinergic receptors in NeuroHIV

Gorska, AM, Ph.D.¹, Geiger, JD, Ph.D.², Eugenin, EA, Ph.D.¹; ¹University of Texas Medical Branch, Department of Neuroscience, Cell Biology and Anatomy, Galveston, TX, 77555 United States. ²University of North Dakota School of Medicine and Health Sciences, Department of Biomedical Sciences, Grand Forks, ND, 58203 United States.

T17 Role of differential packaging within Tobacco/HIV-induced exosomes from macrophages in HIV pathogenesis

Haque, SH¹, Sinha, NS¹, Kodidela, SK¹, Kumar, SK¹; ¹Health Science Center, University of Tennessee, Memphis, TN, 38163 United States.

T18 CRISPR/Cas-9 Oxytocin Nanodelivery: A New Approach to Enhance BBB Transport and Endogenous Expression in Drug Abuse

Jayant, Rahul, Ph.D.¹; ¹Department of Pharmaceutical Sciences, School of Pharmacy, Texas Tech University Health Sciences Center (TTUHSC), Amarillo, TX, 79106 United States.

T19 Drug use is associated with anti-CD4 IgG-mediated CD4+ T cell death and poor CD4+ T cell recovery in viral-suppressive HIV-infected individuals under antiretroviral therapy

Jiang, WJ, MD¹, Luo, ZL, Ph.D.¹; ¹Department of Microbiology and Immunology, Medical University of South Carolina, Charleston, SC, 29425 United States.

T20 BK channels regulate extracellular Tat-mediated HIV-1 LTR transactivation

Khan, Nabab, Ph.D.¹, Lakpa, Leo K., MS¹, Halcrow, Peter, MS¹, Geiger, Jonathan, Ph.D.¹, Chen, Xuesong, Ph.D.¹; ¹University of North Dakota, School of Medicine and Health Sciences, Grand Forks, ND, 58203 United States.

T21 Differential Regulation of TREM2 and CSF1R in CNS Macrophages in the SIV/Macaque Model

Knight, AC¹, Brill, SA¹, Queen, SE¹, Bailey, CC¹, Mankowski, JL¹; ¹Department of Molecular and Comparative Pathobiology, Johns Hopkins University School of Medicine, Baltimore, MD, 21205 United States.

T22 Proteomic and cytokine profiling of exosomes derived from plasma of HIV-infected alcohol drinkers and cigarette smokers.

Kodidela, S, Ph.D.¹, Wang, Y, MS², Patters, B, MS¹, Gong, Y, MS¹, Sinha, N, MS¹, Ranjit, S, Ph.D.¹, Haque, S, MS¹, McArthur, C, MD, Ph.D.³, Kumar, A, Ph.D.³, Wan, J, Ph.D.¹, Kumar, S, Ph.D.¹; ¹Health Science centre, University of Tennessee, Memphis, TN, 38105 United States. ²Medicine, Shanghai Jiao Tong University School of Medicine, Shanghai, Shanghai, 201999 China. ³school of dentistry, University of Missouri-Kansas City, Kansas, MO, 64108 United States.

T23 Cecal ligature and puncture-induced systemic inflammation increases water diffusion in white matter-rich regions in the absence of blood-brain barrier breakdown: relationships to changes in glial cell morphology

Konsman, JP, Ph.D.¹, Dhaya, I, Ph.D.², Griton, M, MD³, Nicolas, R, Ph.D.¹, Raffard, G⁴, Periot, O⁵, Hiba, B, Ph.D.¹; ¹UMR 5287 INCIA, CNRS, Bordeaux, GIRONDE, 33076 France. ²Laboratoire de Neurophysiologie Fonctionnelle et Pathologies, UR/11ES09, Faculté des Sciences Mathématiques, Physiques et Naturelles, Université de Tunis El Manar, Tunis, El Manar, 2092 Tunisia. ³Service de Réanimation Anesthésie Neurochirurgicale, Centre Hospitalier Universitaire (CHU) de Bordeaux, Bordeaux, GIRONDE, 33076 France. ⁴UMR 5536 RMSB, CNRS, Bordeaux, GIRONDE, 33076 France. ⁵Service de Médecine Nucléaire, Centre Hospitalier Universitaire (CHU) de Bordeaux, Bordeaux, GIRONDE, 33076 France.

T24 EXPRESSION OF CYP2E1 IN PLASMA EXOSOMES AND ITS CRITICAL ROLE IN DRUG-INDUCED TOXICITY

Kumar, S, Ph.D.¹, Rahman, MA, MS¹, Sinha, N, BS¹, Haque, S, MS¹, Kodidela, S, Ph.D.¹; ¹Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN, 38163 United States.

T25 Prolonged exposure to HIV-1 Tat or acute morphine differentially alter firing rates in dopamine D1 and D2 receptor-expressing medium spiny neurons in the striatum.

Lark, A, Ph.D.¹, Silva, L.K., Ph.D.¹, Nass, S, Ph.D.¹, Marks, W.D., Ph.D.³, McQuiston, A.R, Ph.D.², Knapp, P.E., Ph.D.², Hauser, K.H., Ph.D.¹; ¹Department of Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA, 23298 United States. ²Department of Anatomy and Neurobiology, Virginia Commonwealth University, Richmond, VA, 23298 United States. ³Department of Psychiatry, UT Southwestern Medical Center, Dallas, TX, 75390 United States.

T26 Restricted and Region-specific HIV-1 mRNA expression in the HIV-1 Transgenic rat brain: role for microglia, but not astrocytes

Li, H, MD, Ph.D.¹, Mactutus, CF, Ph.D.¹, McLaurin, KA¹, Illenberger, J¹, Booze, RM¹; ¹University of South Carolina, Department of Psychology, Columbia, SC, 29208 United States.

T27 Impact of fingolimod (FTY720) on acute inflammation and gliosis in chronic constriction injury

McLane, VD, Ph.D.¹, Donvito, G, Ph.D.¹, Contois, L, Ph.D.¹, Sim-Selley, LJ, Ph.D.¹, Selley, D, Ph.D.¹, Lichtman, AH, Ph.D.¹, Spiegel, S, Ph.D.², Hauser, KF, Ph.D.¹; ¹Department of Pharmacology & Toxicology, Virginia Commonwealth University, Richmond, VA, 23298 United States. ²Department of Biochemistry & Molecular Biology, Virginia Commonwealth University, Richmond, VA, 23298 United States.

T28* Microglia-mediated neuroinflammation bidirectionally modulates morphine reward

McLaughlin, JP, Ph.D.¹, Eans, SO, MS¹, Stacy, HM¹, Cirino, T¹, Zhang, P¹, Liu, B, Ph.D.¹; ¹Dept. of Pharmacodynamics, University of Florida, Gainesville, FL, 32610 United States.

T29 Interactions Between HIV and Aging on the Neural Dynamics Underlying Selective Attention

Lew, Brandon¹, O'Neill, J², Robertson, KR³, Fox, HS⁴, Swindells, S², Wilson, TW¹; ¹Department of Neurological Sciences, University of Nebraska Medical Center, Omaha, NE, 68198 United States. ²Department of Internal Medicine/ Division of Infectious Diseases, University of Nebraska Medical Center, Omaha, NE, 68198 United States. ³Department of Neurology, University of North Carolina School of Medicine, Chapel Hill, NC, 27599 United States. ⁴Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

T30 Alterations in amyloid precursor protein secretases in a model of HIV-induced neurotoxicity

Lopez-Lloreda, C¹, Akay-Espinoza, C¹, Jordan-Sciutto, K¹; ¹Department of Pathology, School of Dental Medicine, University of Pennsylvania, Philadelphia, PA, 19146 United States.

T31* Neuroprotective and anti-inflammatory properties of the neurotrophin receptor ligand, LM11A-31, in animal models of HIV neuropathogenesis

Meeker, R. B., Ph.D.¹, Fogle, J., Ph.D.², Sherman, B., Ph.D.², Gruen, M., Ph.D.², Thompson, A., BS², Clary, J., BS¹, Hudson, L., Ph.D.²; ¹Neurology, University of North Carolina, Chapel Hill, NC, 27517 United States. ²College of Veterinary Medicine, North Carolina State University, Raleigh, NC, 27607 United States.

T32 Identifying a role for E2F1 in synaptodendritic damage in mouse models of HIV

Meurice, C¹, Cirino, TJ², Kim, B-H³, McLaughlin, JP², Volsky, DJ¹, Jordan-Sciutto, KL¹; ¹Department of Pathology, University of Pennsylvania, Philadelphia, PA, 19104 United States. ²Department of Pharmacodynamics, University of Florida, Gainesville, FL, 32610 United States. ³Department of Medicine, Mount Sinai, New York, NY, 10029 United States.

T33 A solution at HAND: Glycogen Synthase Kinase-3 inhibition rescues neurocognitive deficits in a murine model of HIV-Associated Neurocognitive Disorder

Moidunny, S, Ph.D.¹, Titus, D.J., Ph.D.³, Benneyworth, M.A., Ph.D.⁴, Meintz, J., MS⁴, Atkins, C.M., Ph.D.³, Beurel, E., Ph.D.², Roy, S., Ph.D.¹; ¹Department of Surgery, University of Miami Miller School of Medicine, Miami, FL, 33136 United States. ²Department of Psychiatry and Behavioral Sciences, University of Miami Miller School of Medicine, Miami, FL, 33136 United States. ³Department of Neurological Surgery, University of Miami Miller School of Medicine, Miami, FL, 33136 United States. ⁴Department of Neuroscience, University of Minnesota, Minneapolis, MN, 55455 United States.

T34 HIV-1 Tat systematically disrupts cortico-basal ganglia-thalamo-cortical synaptic circuitry and associated behaviors in transgenic mice

Nass, S.R., Ph.D.¹, Hahn, Y.K., Ph.D.², McLane, V.D., Ph.D.¹, Varshneya, N., BS¹, Knapp, P.E., Ph.D.², Hauser, K.F., Ph.D.¹; ¹Department of Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA, 23298 United States. ²Department of Anatomy and Neurobiology, Virginia Commonwealth University, Richmond, VA, 23298 United States.

T35 Cocaine activates microglia via miR-148b-lncRNA XIST-DNMT1 axis-mediated downregulation of an anti-inflammatory gene, PPARG

Periyasamy, P., Ph.D.¹, Hu, G., Ph.D.¹, Buch, S., Ph.D.¹; ¹Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

T36 HIV Tat-mediated astrocyte senescence involves lncRNA TUG1-SIRT1 axis: Implications for HIV induced accelerated aging

Pillai, P., Ph.D.¹, Thangaraj, A., Ph.D.¹, Dagur, R., Ph.D.¹, Hu, G., Ph.D.¹, Buch, S., Ph.D.¹; ¹Department of Pharmacology & Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

T37 Mutations on human norepinephrine transporter at tyrosine 467 and human dopamine transporter at tyrosine 470 are critical for HIV-1 Tat-induced inhibition of dopamine transport

Quizon, P. M.¹, Strauss, M. J.¹, Yuan, Y.², Lin, S.¹, Zhan, CG.², Zhu, J.¹; ¹Department of Drug Discovery and Biomedical Sciences, College of Pharmacy, University of South Carolina, Columbia, SC, 29208 United States. ²Molecular Modeling and Biopharmaceutical Center, and Department of Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, Lexington, KY, 40506 United States.

T38 Taar1 genotype associated with risk for methamphetamine intake correlates with dopaminergic changes

Rosander, Ashley, Ph.D.¹, Basova, L., Ph.D.¹, Lindsey, A., MS¹, Cherner, M., MD, Ph.D.⁴, Baba, H., Ph.D.², Reed, C., Ph.D.², Phillips, T., Ph.D.³, Marcondes, MC, Ph.D.¹; ¹Neuroimmunology, San Diego Biomedical Research Institute, San Diego, CA, 92121 United States. ²Behavioral Neuroscience, Oregon Health & Science University School of Medicine, Portland, OR, 97239 United States. ³VA Portland Health Care System, VA Portland Health Care System, Portland, OR, 97239 United States. ⁴Translational Methamphetamine AIDS Research Center, University of California San Diego, San Diego, CA, 92103 United States.

T39* Protease Inhibitors Effects on Vascular Smooth Muscle Cells

Sanchez, A.B., Ph.D.¹, Soontornniyomkij, B., Ph.D.¹, Fields, J.A., Ph.D.¹, Achim, C.L., MD, Ph.D.¹; ¹Psychiatry, UCSD, La Jolla, CA, 92093 United States.

T40 Modulating macrophage phenotypes as a therapeutic strategy in neurodegenerative diseases

Sanchez, A.B., Ph.D.¹, Qvale, E.M., MS¹, Batki, I.B., BS¹, Swinton, B., BS¹, SOONTORNNIYOMKIJ, B., Ph.D.¹, Fields, J.A., Ph.D.¹, Achim, C.L., MD, Ph.D.¹; ¹Psychiatry, UCSD, La Jolla, CA, 92024 United States.

T41* MicroRNA cluster miR199a/214 are differentially expressed in female and male rats following nicotine self-administration

Schaal, VL, BS³, Pittenger, ST, Ph.D.¹, Moore, D, BS², Guda, RS³, Koul, S, BS³, Yelamanchili, SV, Ph.D.², Bevins, RA, Ph.D.¹, Pendyala, G, Ph.D.³; ¹Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE, 68588 United States. ²Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States. ³Department of Anesthesiology, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

T42 Prescription opioids induce gut dysbiosis and exacerbate Inflammatory Bowel Disease

Sharma, U, Ph.D.¹, Olson, R, MD², Zhang, L, MS¹, Meng, J, Ph.D.¹, Segura, B, MD, Ph.D.², Erhart, Federico, BS¹, Ramakrishnan, S, Ph.D.¹, Abreu, M, MD³, Roy, S, Ph.D.¹; ¹Department of Surgery, University of Miami, Miami, FL, 33136 United States. ²Department of Surgery, University of Minnesota, Minneapolis, MN, 55455 United States. ³Department of Medicine, University of Miami, Miami, FL, 33136 United States.

T43 Molecular mechanisms of ZIKV induced alteration in developing brain

Seth, P, Ph.D.¹, Bhagat, R, MS¹; ¹Cellular and Molecular Neurosciences, National Brain Research Centre, Manesar, Haryana, 122052 India.

T44 Hippocampal cell loss in HIV-1 Tg rats: A Role for Impaired Neurogenesis?

Steiner, A¹, McLaurin, K¹, Li, H¹, Booze, R¹, Mactutus, C¹; ¹Department of Psychology, University of South Carolina, Columbia, SC, 29208 United States.

T45 Neuron-astrocyte interaction in pathogenesis of HIV-associated pain

Tang, S.J, Ph.D.¹, Liu, X, Ph.D.¹; ¹Department of Neuroscience and Cell Biology, University of Texas Medical Branch, Galveston, TX, 77555 United States.

T46 HIV- Tat and Cocaine Impact Astrocytic DNA Methylation

THANGAVEL, SAMIKKANNU, Ph.D.¹, Jeganathan, V, Ph.D.¹, McLaughlin, J.P, Ph.D.², Ramasamy, R, BS¹; ¹College of Pharmacy, Texas A&M University Health Science Center, Kingsville, TX, 78363 United States. ²College of Pharmacy, University of Florida, Gainesville, FL, 32610 United States.

T47 Antiretroviral-mediated dysregulation of autophagy involves lysosomal impairment of microglia

Tripathi, A, Ph.D.¹, Guo, M, Ph.D.¹, Buch, S, Ph.D.¹; ¹Department of Pharmacology & Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, 68198 United States.

T48* Suppression of Macrophage-Induced Neurotoxin Production via Estrogen Receptor Signaling.

Williams, K.S., Ph.D.², Nieves, H.M, BS¹, Harowitz, J, BS¹, Awakoaiye, B, BS³, Jordan-Sciutto, K.J., Ph.D.¹; ¹School of Dental Medicine, University of Pennsylvania, Philadelphia, PA, 19144 United States. ²Environmental and Health Sciences, Spelman College, Atlanta, GA, 30314 United States. ³Biology, Howard University, Washington, DC, 20060 United States.

T49 Metabolic Study of HIV CNS reservoirs

Valdebenito, S., Ph.D.¹, Eugenin, E.A., Ph.D.¹; ¹Department of neuroscience, cell biology and anatomy, University of Texas Medical Branch, GALVESTON, TX, 77550 United States.

T50 Wnt7a-MDMs regulate astrocyte phenotype and are associated with neuroprotection

Wallace, J.W, Ph.D.¹, Morgello, S.M, MD², Al-Harhi, L.A, Ph.D.¹; ¹Microbial Pathogens and Immunity, Rush University Medical Center, Chicago, IL, 60612 United States. ²Icahn School of Medicine, Manhattan HIV Brain Bank, Mount Sinai, New York, NY, 10029 United States.

T51 Thalamic Substructures in HIV: Volume Deficits and Correlates

Zahr, Natalie, Ph.D.¹, Saranathan, M, Ph.D.³, Pohl, K, Ph.D.², Sullivan, E.V, Ph.D.¹; ¹Psychiatry and Behavioral Sciences, Stanford University, Stanford, CA, 94305 United States. ²Neuroscience, SRI International, Menlo Park, CA, 94025 United States. ³Department of Medical Imaging, The University of Arizona Health Sciences, Tucson, AZ, 85724 United States.

T52 Long-term HIV-1 Tat expression in the brain led to neurobehavioral, pathological, and epigenetic changes reminiscent of accelerated ageing

Zhao, Xiaojie, MD, Ph.D.¹, Fan, Yan, Ph.D.², Vann, Philip H², Wong, Jessica M², Sumien, Nathalie, Ph.D.², He, Johnny J, Ph.D.¹; ¹Department of Microbiology, Immunology & Genetics, Graduate School of Biomedical Sciences, University of North Texas Health Science Center, Fort Worth, TX, 76107 United States. ²Department of Pharmacology & Neuroscience, University of North Texas Health Science Center, Fort Worth, TX, 76107 United States.

Late Breaking Abstracts & Posters – Thursday

T53 Fibroblast Growth Factor 21 (FGF21) Attenuates the Preference for Morphine in Conditioned Place Preference Assay

Bidlack, J.M.¹, Dorval, L.¹, Knapp, B.I.¹; ¹Department of Pharmacology and Physiology, University of Rochester School of Medicine and Dentistry, Rochester, NY, 14642 United States.

T54 Mephedrone, a psychoactive drug of abuse, exacerbates the effects of HIV-1 gp120 on brain endothelial barrier disruption

Buzhdygan, T.P., Ph.D.^{1,2}, Andrews, A.M., Ph.D.^{1,2}, Sullivan, T.P., BS¹, Nayak, S.U., BS², Rawls, S.M., Ph.D.^{2,3}, Ramirez, S.H., Ph.D.^{1,2,4}; ¹Department of Pathology and Laboratory Medicine, The Lewis Katz School of Medicine at Temple University, Philadelphia, PA, 19140 United States. ²Center for Substance Abuse Research, ³Department of Pharmacology, ⁴Shriners Hospitals Pediatric Research Center, The Lewis Katz School of Medicine at Temple University, Philadelphia, PA, 19140 United States.

T55 Gut Microbiome Dysbiosis is Related with Negative Emotional States in HIV Infection

Pérez-Santiago, J., Ph.D.¹, Marquine, M., Ph.D.², Cookson, D., MS³, Heaton, R., Ph.D.², Grant, I., MD, Ph.D.², Letender, S., MD³, Peterson, S., Ph.D.⁴; ¹Cancer Biology, University of Puerto Rico Comprehensive Cancer Center, San Juan, PR, 00936 United States. ²Psychiatry, University of California San Diego, San Diego, CA, 92093 United States. ³Medicine, University of California San Diego, San Diego, CA, 92093 United States. ⁴Inflammatory and Infectious Diseases, Sanford-Burnham-Prebys Medical Discovery Institute, La Jolla, CA, 92037 United States.

T56 Antiallosteric Effects of Cannabinoid Receptor 2 Agonists on Retrovirus Infection-induced Neuropathic Pain

Sheng, W., Ph.D.¹, Gupta, P., Ph.D.¹, Hu, S., MD¹, Prasad, S., Ph.D.¹, Lokensgard, J., Ph.D.¹; ¹Neurovirology Lab/ID Division, Medical School/University of Minnesota, Minneapolis, MN, 55455 United States.

T57 Novel allosteric modulatory effects of SRI-32743 on HIV-1 Tat protein-induced inhibition of human dopamine transporter and potentiation of cocaine reward in HIV-1 Tat transgenic mice

Zhu, Jun, MD, Ph.D.¹, Stacy, HM, MS², Eans, SO, Ph.D.², McLaughlin, JP, Ph.D.², Ananthan, S, Ph.D.³; ¹Drug Discovery and Biomedical Sciences, College of Pharmacy, University of South Carolina, Columbia, SC, 29208 United States. ²Department of Pharmacodynamics, College of Pharmacy, University of Florida, Gainesville, FL, 29208 United States. ³Department of Chemistry, Southern Research Institute, Birmingham, AL, 35205 United States.

T58 Perkin Elmer Poster 2

T59 Sequencing the microglia translome during morphine escalation and naloxone precipitated withdrawal: The role of cyclic nucleotide signaling

Coffey, KC, Ph.D.¹, Neumaier, JF, MD, Ph.D.¹, Lesiak, AJ, Ph.D.¹; ¹Psychiatry & Behavioral Science, University of Washington, Seattle, WA, 98102 United States.