

The 28th Society of Neuroimmune Pharmacology Conference

March 10-13, 2024

The Francis Marion Hotel, Charleston, SC

Agenda

| Time/period | Events |
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| Sunday, March 10, 2024 | |
| 12:00 – 5:30 PM | Registration |
| 1:30 PM – 5:00 PM | Satellite meeting: Models of NeuroHIV (Sponsored by NIMH) |
| 1:30 PM – 1:50 PM | Topic 1 <u>Welcome and introduction to the History of models of HIV in the CNS</u> Development of Cellular and Molecular models to gain mechanistic insights into HIV infection in the CNS <i>Dr. Kelly Jordan-Sciutto, Professor of Medicine,</i> Evolution of Macaque and small animal models of HIV infection in the CNS <i>Dr. Siddappa Byrareddy, Professor and Vice Chair, Department of Pharmacology and Experimental neuroscience, University of Nebraska Medical Center, Omaha. NE</i> |
| 1:50 PM – 2:10 PM | Topic 2 Current status of HIV infection in the CNS <i>Dr. Scott Letendre (zoom or recorded talk), Professor of Medicine, Infectious Disease Specialist, University of San Diego Health, San Diego, CA</i> |
| 2:10 PM – 2:30 PM | Topic 3 Cell-based model of HIV in CNS: contributions of T cells, macrophages and microglia to CNS reservoirs |

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| 2:30 PM – 2:50 PM | <p><i>Dr. Lishomwa Ndhlovu, Professor of Immunology in Neuroscience, Brain and Mind Research Institute, Weill Cornell Medical College, New York, NY</i></p> |
| 2:50 PM – 3:05 PM | <p>Topic 4 Strengths and Weaknesses of 3-D CNS <u>Organoids to Understand Neuropathogenesis</u> <i>Dr. Alysson R. Muotri, Professor, Department of Pediatrics, University of California San Diego, La Jolla, CA</i></p> |
| 3:05 PM – 3:25 PM | <p>Beverage Break</p> |
| 3:25 PM – 3:45 PM | <p>Topic 5 Strengths and Weaknesses of <u>Mouse Models of HIV infection</u> <i>Dr. Marcus Kaul, Professor, Department of Biomedical Sciences, University of California at Riverside, CA</i></p> |
| 3:45 PM – 4:05 PM | <p>Topic 6 Considerations for <u>Blood brain barrier modeling and HIV infection</u> <i>Dr. Michal Toborek, Professor and Vice Chair for Research, Department of Biochemistry and Molecular Biology, University of Miami, Miami, FL</i></p> |
| 4:05 PM – 4:25 PM | <p>Topic 7 Considerations for modeling <u>Genetic Modifiers of Disease</u> - <i>Pending</i></p> |
| 4:25 PM – 5:00 PM | <p>Topic 8 Strengths and limitations of <u>Macaque Models of HIV/SIV CNS infection</u> <i>Dr. Rebecca Veenhuis, Assistant Professor, Department of Molecular and Comparative Pathobiology, Johns Hopkins University, Baltimore, MD</i></p> |
| | <p><u>Discussion with Panel of NeuroHIV experts</u> (<i>Pending</i>)</p> <p><i>Dr. Sabita Roy, Professor and Vice Chair for Research and Career Development, Department of Surgery, University of Miami, Miami, FL</i> <i>Dr. Santhi Gorantla, Professor, Department of Pharmacology and Experimental Neuroscience, Director-Translational Mouse Models Core, University of Nebraska Medical Center, Omaha, NE</i> <i>Dr. Beth Finch, Health Scientist Administrator, National Institute of Mental Health (NIMH), Rockville, MD</i></p> |
| 5:15 PM – 6:00 PM | <p>Diversity and Inclusion SNIP Council (DISC) Special Lecture:</p> <p>Introduction: Dr. Andrea Raymond, Associate Professor, Herbert Wertheim School of Medicine, Florida International University, Miami, FL, USA</p> <p>Speaker: Dr. Walter Royal, III, MD Professor and Chair, Department of Neurobiology, University of Maryland School of Medicine, Baltimore, MD</p> |

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| 6:00 PM – 9:00 PM | <p>Early Career Investigator (ECI) Poster Session Networking Reception: Finger snacks & drinks</p> |
| <h1>Monday, March 11, 2024</h1> | |
| 7:00 AM - 8:00 AM | <p>Breakfast</p> |
| 8:00 AM - 9:30 AM | <p>Welcome from the President: Dr. Rosemarie Booze, Professor and Bicentennial Endowed Chair, Behavioral Neuroscience, USC</p> <p>Presidential Symposium: “Pathophysiological Mechanisms of Long COVID: Current research and future directions”</p> <p>Co-chairs: Dr. Rosemarie Booze, Professor and Bicentennial Endowed Chair, Behavioral Neuroscience, University of South Carolina, Charleston, SC Dr. Prasun Datta, Associate Professor, Microbiology and Immunology, Tulane National Primate Research Center, Covington, LA</p> <p>Plenary Speaker: Dr. Avindra Nath, Clinical Director of NINDS, the Director of the Translational Neuroscience Center and Chief of the Section of Infections of the Nervous System. NINDS, Bethesda, MD Title: Neuropathogenesis of Long-COVID</p> <p>Speakers:</p> <ol style="list-style-type: none"> 1. Dr. Jessica Raper, Researcher, Emory National Primate Center, Emory University, Atlanta, GA Title: Neurocognitive characteristics similar to clinical symptoms of post-acute sequelae of SARS-COV-2 infection (PASC) in rhesus macaques after COVID-19 infection. 2. Dr. Prasun Datta, Associate Professor, Microbiology and Immunology, Tulane National Primate Research Center, Covington, LA Title: Insights into long-COVID and ADRD: Plasma proteomics and metabolomic analysis in SARS-COV-2 infected African green monkey. |

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| | <p>3. Siddappa N. Byrareddy, Professor and Vice Chair, Department of Pharmacology and Experimental neuroscience, University of Nebraska Medical Center, Omaha. NE Title: Tissue-specific reprogramming signatures determine SARS-CoV-2 Post COVID-19 sequelae.</p> |
| 9:30 AM - 10:00 AM | <p>Beverage Break</p> |
| 10:00 AM - 10:30 AM | <p>Bill Narayan Memorial Lecture</p> <p>Introduction: Dr. Allison Andrews, Associate Professor at the University of Florida University of Florida</p> <p>Speaker: Dr. Joan W. Berman, Professor, Irving D. Karpas Chair in Medicine Departments of Pathology and Microbiology & Immunology, Albert Einstein College of Medicine, Bronx, NY</p> <p>Title: Mechanisms of HIV neuropathogenesis in the context of substance use disorder and potential therapies to reduce viral seeding and inflammation of the CNS.</p> |
| 10:30 AM-12:00 noon | <p>Early Career Investigator (ECI) Symposium</p> <p>Co-chairs: Dr. Lisa Cisneros, Assistant Professor, Department of Pathology, University of Texas Medical Branch, Galveston, TX Dr. Shamsudheen Moidunny, Research Assistant Professor, University of Miami, Miller School of Medicine, Miami, FL</p> <p>Speakers:</p> <ol style="list-style-type: none"> 1. Hanna Wilkins, BS., Graduate Student, Pharmacology and Molecular Sciences, The Johns Hopkins University, Baltimore, MD Title: HIV Antiretroviral Drug Metabolism and Transport Mechanisms at the Blood Brain Barrier 2. Haylee Hammond, BS., Graduate Student, Department of Pharmacodynamics, College of Pharmacy, University of Florida, Gainesville, FL Title: Dimethyl Fumarate (DMF) Ameliorates Deficits of Cognition, Mood, and Substance Abuse in Mice Exposed to HIV-1-Tat Protein and/or Morphine 3. Tofunmmi Oteju, BS., Department of Pharmacology and Physiology, Drexel University College of Medicine, Philadelphia, PA Title: Cocaine enhances HIV-Infection of Human Macrophages and iPSC-Derived Microglia Via Sigma-1 4. Darius Quansah, MS., Graduate Student, Department of Biomedical Sciences, School of Medicine and Health |

Sciences, University of North Dakota, Grand Forks, ND

Title: Endolysosome Iron Chelation Rescues Amyloid Beta-Induced Mitochondrial Damage and Ferroptosis Via Regulation of SLC7A11-Dependent Mechanisms

5. **Jessalyn Pla-Tenorio, BS.**, Graduate Student, Basic Sciences Division, Ponce Health Sciences University, Ponce, PR

Title: HIV-1 Nef Decreases Glutamate Transporter Expression on Astrocytes of the Nucleus Accumbens and Increases Cocaine-Seeking Behavior in Rats

6. **Chen Zhang, BS.**, Graduate Student, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE

Title: HIV-1-Infection Accelerates Neuroimmune Dysregulation in Aged Humanized Mice

7. **Ana Jimenez, PhD.**, Post doctoral fellow, Department of Drug Discovery, College of Pharmacy, University of South Carolina, Columbia, SC

Title: Pyrimidine Structure-Based Compounds Allosterically Modulate Dopamine and Norepinephrine Transporters, Ameliorate the Dysregulation of Dopamine Uptake Induced by HIV-1 Transactivator of Transcription (Tat) and The Potentiation of Cocaine Reward

8. **Marzieh Daniali, BS.**, Graduate Student, Department of Pharmacology and Physiology, Drexel University, College of Medicine, Philadelphia, PA

Title: Dopamine-Mediated Regulation of Inflammasome Formation and Activation in Human Monocyte-Derived Macrophages

9. **Bryant Avalos, BS.**, Graduate Student, Department of Psychiatry, University of California, San Diego, La Jolla, CA

Title: Chronicity of Cannabis Use is Linked to Disrupted Immunomodulatory Role of TREM2 in HIV

10. **Seema Singh, PhD.**, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE

Title: HIV Tat-Mediated Release of Ferroptosis Cargoes in Microglia-Derived Extracellular Vesicles: Role of Autophagy

11. **Ariana Figueroa, BS.**, Graduate Student, Department of Pharmacodynamics, College of Pharmacy, University of Florida, Gainesville, FL

Title: Impact of Osteopontin on Microglial Phenotypes in Response to Peripheral Proinflammatory Challenge in Mice

12. **Lina Zhou, BS.**, Graduate Student, University of Tennessee Health Science Center, Memphis, TN

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| | <p>Title: Hybrid Extracellular-Based Drug Delivery Approach with ART Drugs to Suppress HIV in the CNS Reservoirs</p> |
| 12:00 noon- 1:30 PM | <p>Lunch: NIH workshop with Program Officers</p> |
| 1:30 PM-3:00 PM | <p>Symposium 2: “New insights into the effects of drugs of abuse and HIV on the brain from state-of-the-art single-cell studies”</p> <p>Chair: Dr. Howard Fox, Professor, Department of Neurological Sciences, Senior Associate Dean of Research and Development, College of Medicine,</p> <p>Speakers:</p> <ol style="list-style-type: none"> 1. Dr. Lauren Wells, Mt. Sinai School of Medicine, New York, NY. Title: HIV infection enhances the addiction-related actions of opioids: Brain substrates and cellular mechanisms. 2. Dr. Michael Corley, Cornell University School of Medicine, NY, NY. Title: Integrated single cell analysis of cerebrospinal fluid cells in people living with HIV. 3. Dr. Arpan Acharya, Instructor, University of Nebraska Medical Center, Omaha, NE. Title: CSF immune cells landscape during opioid use and SIV infection 4. Ms. Xiaoke Xu, Graduate Student, University of Nebraska Medical Center, Omaha, NE. Title: Immunotyping of Microglia and Macrophages in the CNS during Acute SIV Infection: A Single-Cell Analysis of Rhesus Macaque Brains. <p>Panel discussion with speakers and others working on single-cell analyses</p> |
| 3:00 PM- 3:30 PM | <p>Beverage Break</p> |
| 3:30 PM- 5:00 PM | <p>Symposium 3: “The brain, HIV persistence, and rebound”</p> <p>Co-chairs: Dr. Lena Al-Harhi Professor and Chair, Department of Immunology, Rush University, Chicago, IL Dr. Chandranu Dash, Professor, Meharry Medical College, Nashville, TN</p> <p>Speakers:</p> |

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| | <ol style="list-style-type: none"> Dr. Ron Swanstrom, Professor, UNC Center For AIDS Research, University of North Carolina at Chapel Hill, Chapel Hill, NC Title: Search for an HIV CNS reservoir. Dr. Jeffery Schneider, Assistant Professor, Department of Microbial Pathogens and Immunity, Rush University Medical Center, Chicago, IL Title: Characterizing the cell types associated with SIV rebound and inflammation in the CNS post cART cessation. Dr. Andrew Henderson, Professor, Boston University School of Medicine, Boston, MA Title: Role of defective HIV-1 proviral RNAs in persistent inflammation Dr. Michael Nonnemacher, Professor, Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA Title: Characterizing the HIV-1 proviral milieu in the spleen and brain white matter |
| 7:00 PM - 9:00 PM | NIPT Editor's dinner/ Dinner on your own |

Tuesday, March 12, 2024

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| 7:00 AM - 8:00 AM | Breakfast |
| 8:00 AM - 9:30 AM | <p>Symposium 4: “Immune Transformative Therapy for Neurodegeneration and Neuroinflammatory Diseases”</p> <p>Co-chairs:</p> <p>Dr. Howard Gendelman, Professor and Chair, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE Dr. Kalipada Pahan, Professor of Neurological sciences, Biochemistry and Pharmacology and the Floyd A. Davis, MD, Endowed Chair in Neurology, Rush University, Chicago, IL</p> <p>Speakers:</p> <ol style="list-style-type: none"> Dr. Stan Appel, Professor, Peggy & Gary Edwards Distinguished Chair in ALS Research, Department of Neurology, Director-Ann Kimbell & John W. Johnson Center for Cellular Therapeutics, Houston Methodist Research Institute, Houston Methodist Neurological Institute, Houston, TX Title: Immunomodulatory therapy in Neurodegenerative Diseases: Lessons from ALS Dr. Mai Mostafa, Post doctoral Associate, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE |

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| | <p>Title: Clinical Biomarkers for Parkinson's Disease</p> <p>3. Dr. Scott Shandler, Founder and CEO, Longevity Biotech, Inc., Philadelphia, PA Title: Immune Rebalancing as a Disease Modifying Strategy for Parkinson's Disease</p> <p>4. Dr. Kalipada Pahan, Professor, Professor of Neurological sciences, Biochemistry and Pharmacology and the Floyd A. Davis, MD, Endowed Chair in Neurology, Rush University, Chicago, IL Title: Targeting innate immunity to stop tauopathy</p> |
| 9:30 AM - 11:00 AM | General Poster Session and Bevearge Break |
| 11:00 AM - 12:30 PM | <p>Symposium 5: "Inflamaging in Neurodegenerative Diseases"</p> <p>Co-chairs:</p> <p>Dr. Shilpa Buch, Professor and Executive Vice-Chair of the Department of Pharmacology and Experimental Neuroscience at University of Nebraska Medical Center, Omaha, NE Dr. Tricia H. Burdo, Professor, Vice Chair, Department of Microbiology, Immunology and Inflammation, Lewis Katz School of Medicine, Temple University, Philadelphia, PA</p> <p>Speakers:</p> <ol style="list-style-type: none"> Dr. Christopher Power, Professor, Department of Medicine (Neurology), Psychiatry, Medical Microbiology & Immunology, University of Alberta Title: The inflammasome-pyoptosis axis drives neurodegeneration in neuroHIV Dr. Linda Chang, Professor and Vice Chair for Faculty Development, Univ of Maryland School of Medicine Title: Neuroinflammation in healthy aging and in neurological disorders Dr. Norman J. Haughey, Vice Chair & Professor, Department of Neurology, Johns Hopkins University Title: Sex differences in the brains response to inflammatory stimuli may augment the susceptibility of aging women to neurodegenerative disease Dr. Alice Min, Instructor, Division of Infectious Diseases, Icahn School of Medicine at Mount Sinai Title: An iPSC-derived microglia xenografted humanized mouse model to investigate CNS HIV-1 infection and neuroinflammation |
| 12:30 PM – 2:00 PM | Lunch on your own/ Meet the Mentors Box Lunch for trainees |

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| 2:00 PM – 3:30 PM | <p>Symposium 6: “Functional changes of neurovascular unit during exposure to drugs of abuse and infections”</p> <p>Co-Chairs: Dr. Yuri Persidsky, Professor and Chair, Pathology and Laboratory Medicine Department of Pathology and Laboratory Medicine, Temple University, Philadelphia, PA Dr. Michal Toborek, Professor, Vice-Chair for Research, Biochemistry and Molecular Biology, University of Miami, Miami, FL</p> <p>Speakers:</p> <ol style="list-style-type: none"> Dr. Shilpa Buch, Professor, University of Nebraska Medical Center, Omaha, NE. Title: Opiate induced breach of the blood-brain barrier: Role of extracellular vesicles Dr. Michelle Erickson, Professor, VA Puget Sound Healthcare System and The University of Washington, Seattle, WA. Title: Interactions of SARS-CoV-2 proteins with the mouse blood-brain barrier Dr. Naveen Mekala, Post doctoral Associate, Temple University Lewis Katz School of Medicine, Philadelphia, PA. Title: E-cigarette and alcohol cause alveolar epithelial and blood brain barrier injury via extracellular vesicles release and purinergic receptor signaling Dr. Michal Toborek, Professor, University of Miami, Miami, FL. Title: Cerebrovascular dysfunction in methamphetamine misuse and HIV infection |
| 3:30 PM – 3:45 PM | <p>Beverage Break</p> |
| 3:45 PM – 5:15 PM | <p>Symposium 7: “Extracellular vesicle for the study of HIV and SUD”</p> <p>Co-Chairs: Dr. Fatah Kashanchi, Professor, Department of Virology, George Mason University, Fairfax VA Dr. Da-Yu Wu, Program Director, National Institute of Drug Abuse, Bethesda, MD</p> <p>Speakers:</p> |

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| | <ol style="list-style-type: none"> Dr. Chioma M Okeoma, Associate Professor and Vice Chair of Research, Pathology, Microbiology & Immunology, School of Medicine, New York Medical College, Valhalla, NY Title: Extracellular condensates (ECs) are endogenous modulators of HIV transcription and latency reactivation. Dr. Nazira El-Hage, Professor, Herbert Wertheim College of Medicine, Florida International University, Miami, FL Title: Extracellular Vesicles Released by Genetically Modified Macrophages Produce Potent Neuroprotection in Mouse Model of Batten Disease (a Lysosomal storage disorder). Dr. Catherine DeMarino, Post doctoral fellow, National Institute of Health, Annandale, VA Title: HIV-1 RNA in Extracellular Vesicles is Associated with Neurocognitive Outcomes. Dr. Daniel T. Chiu, A. Bruce Montgomery Professor of Chemistry, University of Washington, Seattle, WA Title: Digital flow cytometry for the high-resolution analysis of extracellular vesicles to enable new biomarker discovery. |
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| 6:30 PM-10:00 PM | SNIP Banquet and Award Ceremony |
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| <h1>Wednesday, March 13, 2024</h1> |
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| 7:00 AM-8:00 AM | Breakfast |
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| 8:00 AM-9:30 AM | <p>Symposium 8: “Immune-dopaminergic interactions in neurological disorders”</p> <p>Co-chairs: Dr. Peter Gaskill, Associate Professor, Department of Pharmacology and Physiology, Drexel University College of Medicine. Dr. Cecilia Marcondes, Professor, San Diego Biomedical Research Institute, San Diego</p> <p>Speakers:</p> <ol style="list-style-type: none"> Dr. Bruno Conti, Professor, San Diego Biomedical Research Institute, San Diego, CA Title: IL13 and the neurommune intersections driving dopaminergic loss in Parkinson’s disease and addiction Ms. Breana Channer, Graduate student, Drexel University College of Medicine, Philadelphia, PA Title: Dopaminergic regulation of myeloid inflammation Dr. Adithya Gopinath, Post-doctoral fellow, University of Florida at Gainesville, FL Title: Dopaminergic interactions in the neuroimmunology of Parkinson’s Disease |
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| | <p>4. Dr. Dionna Williams, Associate professor, Department of Pharmacology, Emory University, Atlanta, GA Title: Cocaine Modulates Macrophage and Blood Brain Barrier CYP3A4-Mediated Drug Metabolism in a Donor-Dependent Fashion</p> <p>5. Dr. Violaine Delorme-Walker, Senior staff scientist, San Diego Biomedical Research Institute, San Diego, CA Title: Dopaminergic modulation of the blood-brain barrier in the context of HIV latency”</p> <p>Final remarks: (3 – 5 minutes) - Dr. Cecilia Marcondes</p> |
| 9:30 AM-10:00 AM | <p>Drs. Mahendra and Adarsh Kumar Memorial Lecture</p> <p>Introduction: Dr. Charles Mactuctus, Professor, Psychology, University of South Carolina, Charleston, SC</p> <p>Speaker: Dr. Kurt Hauser, Professor, Department of Pharmacology and Toxicology, University of Virginia, Commonwealth, VA</p> <p>Title: Opioid use disorder and neuroHIV: Glial inflammation and disrupted neuronal chloride homeostasis drive excitotoxicity</p> |
| 10:00 AM-10:15 AM | <p>Beverage Break</p> |
| 10:15 AM-12:00 Noon | <p>SNIP Member Symposium: “Neuropharmacology & Neuroimmunology of HIV and SUD”</p> <p>Co-Chairs: Dr. Santhi Gorantla, Professor, Department of Pharmacology and Experimental Neuroscience University of Nebraska Medical Center, Omaha, NE Dr. Santosh Kumar, Professor, Department of Pharmaceutical Sciences, College of Pharmacy, University of Tennessee Health Science Center, Memphis, TN</p> <p>Speakers:</p> <ol style="list-style-type: none"> 1. Dr. Srinivasa Narasipura, Senior post doc/Staff Scientist, Microbial Pathogens and Immunity, Rush University , Chicago, IL Title: CD4dim CD8bright T Cells Home to the Brain and Mediate HIV Neuroinvasion 2. Dr. Aditya Bade, Assistant Professor, Department of Phramacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE Title: Long-acting dolutegravir formulations prevent neurodevelopmental impairments. 3. Dr. Xuesong Chen, Associate Professor, Biomedical Sciences, University of North Dakota, School of Medicine and Health Sciences, Grand Forks, ND Title: SLC38A9 regulates SARS-COV-2 viral entry. |

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| | <ol style="list-style-type: none"> 4. Dr. Marcus Kaul, Professor, Department of Biomedical Sciences, University of California at Riverside, CA Title: Macrophage-derived cysteinyl-leukotrienes are critical factors in HIV-1 induced neuronal injury: regulation by methamphetamine. 5. Dr. Keshore Bidasee, Professor, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE Title: Cardiac diastolic dysfunction with ischemia and fibrosis in female HIV-1 infected humanized mice treated with cART. 6. Dr. Jay McLaughlin, Professor, Department of Pharmacodynamics, University of Florida, Gainesville, FL Title: Mice lacking osteopontin demonstrate increased sensitivity and a potentiation of conditioned place preference to varied abused substances 7. Dr. Debasis Nayak, Associate Professor, Indian Institute of Science Education and Research at Bhopal, Bhopal, MP, India Title: Deciphering CHPV pathogenesis: LDLR-mediated entry and implications for encephalitis in neonatal mice. 8. Dr. Michael D. Wyatt, Professor and Chair, Department of Drug Discovery & Biomedical Sciences, University of South Carolina, Columbia, SC Title: Drug repurposing for the prevention of dementia among people living with human immunodeficiency virus: a focus on the renin-angiotensin system. 9. Dr. Silvana Valdebenito-Silva, Assistant Professor, University of Texas Medical Branch, Galveston, TX 77555. Title: The role of tunneling nanotubes in neuroHIV. 10. Dr. Charles Mactuctus, Professor, Psychology, University of South Carolina, Charleston, SC Title: The HIV-1 transgenic rat: an extant in vivo biological system to model aging and HIV-1 comorbidities |
| 12:00 PM-1:00 PM | SNIP Business meeting and Boxed Lunch |
| 1:00 PM - 2:30 PM | <p>Symposium 9: “Substance abuse and microbiome”</p> <p>Co-Chairs: Dr. Wei Jiang, Professor, Microbiology and Immunology, Medical College of South Carolina. Dr. Woody Lin, NIDA</p> <p>Speakers:</p> <ol style="list-style-type: none"> 1. Dr. Drew Kiraly, Associate professor in Psychiatry, Wake Forest University School of Medicine, NC Title: Gut-brain signaling in regulating drug seeking behaviors: Identifications of mechanisms and molecular pathways 2. Dr. Wei Jiang, Professor, Department of Microbiology and Immunology, Medical University of South Carolina, Charleston, SC |

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| | <p>Title: Cannabis smoking, oral microbiome, and central nervous system pathogenesis.</p> <ol style="list-style-type: none"><li data-bbox="527 172 1923 269">3. Ms. Brittney Browning, Graduate Student, Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, Charleston, SC Title: Microbial differences associated with substance use in adolescence and young adulthood<li data-bbox="527 305 1997 402">4. Dr. Mariana Angoa-Perez, Post doctoral associate, Department of Neuroscience, Medical University of South Carolina, Charleston, SC Title: Long access heroin self-administration alters gut microbiome diversity and composition.<li data-bbox="527 438 2039 535">5. Ms. Mason Rodriguez, Graduate Student, Behavioral Neuroscience, Department of Psychology, University of South Carolina, Charleston, SC Title: Gut Microbiome Alterations in EcoHIV Inoculated Rats Self-Administering Cocaine |
| 2:30 PM- 3:15 PM | End of Conference Wrap-up |