

## Schedule for the 29<sup>th</sup> Annual Society of Neuroimmune Pharmacology Conference

### Sunday, June 8th

12:00 – 5:30 PM	Registration Open (Registration desk by side entrance doors)
1:00 - 3:00 PM	<p><b>Pre-conference workshop 1: Creation, Care, and Translation of Humanized Mouse for HIV/AIDS Research</b>  <b>Moderator:</b> Santhi Gorantla, PhD, and Howard E. Gendelman, MD, University of Nebraska Medical Center                  Angela Wahl, PhD, Associate Professor, Microbiology, University of Alabama at Birmingham  <b>Next-Generation Humanized Mouse Models of HIV/AIDS Research</b>                  Jennifer Koblinski, PhD, Associate Professor, Virginia Commonwealth  <b>Advancing Research with Humanized Mice: Unlocking the Potential of Shared Resources</b>                  Santhi Gorantla, PhD, Professor, Pharm. and Exp. Neuroscience, University of Nebraska Medical Center  <b>Novel Humanized Mouse Models for NeuroHIV</b>                  Ramesh Akkina, PhD, Professor, Microbiology, Immunology, and Pathology, Colorado State University  <b>Understanding HIV Evolution, Latency, and Elite Control Using Humanized Mice</b>  <b>Summary Discussion:</b> Paul Denton, PhD, University of Nebraska-Omaha</p>
3:00-3:15 PM	<b>Break</b>
3:15-5:30 PM	<p><b>Pre-conference workshop 2: Mentoring and Opportunities for Early-Stage Investigators in Neuroscience (ESINs)</b>  <b>Moderator:</b> Siddappa Byrareddy, PhD. Professor and Vice-Chair of Research, University of Nebraska Medical Center,  <b>Co-chairs:</b> Vasudev Rao, MD, NIH/NIMH; William Daley, PhD, NIH/NINDS and Kathleen Borgmann, PhD, NIH/NIDA  <b>Opening remarks:</b> NIMH/NINDS/NIDA officials  <b>Overview and Networking opportunities:</b> Vinayaka R. Prasad, PhD, Professor, Associate Chair of Academic Affairs, Core Director, ERC CFAR Developmental Core, Program Director, <i>Training in HIV/AIDS Pathogenesis</i> T32 Program, Albert Einstein College of Medicine, Bronx, NY  <b>Mentoring and Engagements:</b> Amanda Brown, PhD, Director, Johns Hopkins NeuroHIV-Comorbidities Scholars Program; Director, Johns Hopkins Internship in Brain Sciences Program  <b>Round Table Discussion:</b> Yisel M. Cantres-Rosario, PhD, University of Puerto Rico, Aditya Bade, PhD, University of Nebraska Medical Center, Kathleen Borgmann, PhD, NIH/NIDA, Siddappa Byrareddy, PhD, University of Nebraska Medical Center</p>
5:15 – 6:00 PM	<b>Break</b>
6:00- 8:00 PM	<b>ECITA Poster Session and Meet and Greet</b>

### Monday, June 9th

8:00 – 9:30 AM	<p><b>Symposium 1: Welcome from the President: Presidential Symposium Pathobiology and Novel Therapies for Neurodegenerative Diseases</b>  <b>Chair/Co-Chair:</b> Howard E. Gendelman, MD, and R. Lee Mosley, PhD, University of Nebraska Medical Center                  Howard E. Gendelman, MD, Professor, UNMC, Omaha, NE  <b>Next generation cellular therapies for neurodegenerative disorders</b>                  Serge Przedborski, PhD, Distinguished Professor of Neurology, Columbia University, New York  <b>Neuropathogenesis of Degenerative Diseases of the Nervous System</b>                  Christopher Wheeler, PhD, Director T-Neuro Pharma, Santa Cruz, CA  <b>The promise of targeting cytolytic T cells in Alzheimer's treatment and prevention</b>                  Susmita Sil, PhD, Assistant Professor, UNMC, Omaha, NE  <b>Monocyte Biomarkers for Early Stage Sargramostim Parkinson's Disease Therapy</b></p>
9:30 – 10:00 AM	<p><b>Toby Eisenstein Memorial Lecture</b>                  Mary Lou Falcone, producer, visionary, and author of, <i>I Didn't See it Coming: Scenes of Love, Loss and Lewy Body Dementia</i>  <b>I Didn't See it Coming: Personal Insights for Lewy Body Dementia</b></p>
10:00-10:15 AM	<b>Break</b>
10:15– 11:45 AM	<p><b>Symposium 2: Ultra-long-acting antiretroviral drugs</b>  <b>Chairs:</b> Brady Silman, PhD, Assistant Professor, University of Nebraska Medical Center and Sudipta Panja, PhD, Assistant Professor, University of Nebraska Medical Center                  Charles Flexner, MD, Professor, Johns Hopkins University Medical Center, Baltimore, MD  <b>How Long-Acting Formulations Are Revolutionizing the Treatment and Prevention of HIV</b></p>

	<p>Benson Edagwa, PhD, Professor, University of Nebraska Medical Center, Omaha, NE  <b>Ultra-Long-Acting Slow Effective Release Therapies</b>  Jim Rooney, MD, Senior Vice President, Gilead, Foster City, CA</p> <p>Lenacapavir for the Treatment and Prevention of HIV infection  Paul L. Domanico, PhD, Director, Clinton Health Access Initiative, Raleigh, NC  <b>The Global Health Sciences Department at Clinton Health Access</b></p>
11:45 – 12:15 PM	<p><b>Drs Mahendra and Adarsh Kumar Memorial Lecture</b></p> <p>Dr. Tsuneya Ikezu, MD, PhD, Professor Mayo Clinic, Jacksonville, FL  <b>Cargo lipids in APOE4 brain extracellular vesicles facilitate Tau propagation in Alzheimer’s disease</b></p>
12:30 – 1:30 PM	<p><b>Lunch Symposium 3 Sponsored by Fisher Scientific</b>  <b>Chairs:</b> Jerel A. Fields, PhD, Associate Professor University of California at San Diego and Shamshudeen Moidunny, Assistant Professor, University of Miami</p> <ol style="list-style-type: none"> <li><b>Alzheimer’s and neuroHIV: A comparative analysis of metabolic pathway in postmortem brain tissues.</b> Ali Boustani, MD, University of California, San Diego School of Medicine</li> <li><b>Exploring the effects of chronic oral inoculation of actinomyces meyeri on behavioral and neurobiological changes in b6 mice.</b> Tabinda Salman, PhD, Medical University of South Carolina</li> <li><b>Quantitative proteomics of astrocyte-derived exosomes reveal potential novel biomarkers of HIV-associated neurocognitive impairment.</b> Lester J. Rosario Rodriguez, PhD, University of Puerto Rico, Medical Sciences Campus</li> <li><b>Structural brain abnormalities and neuropsychiatric symptoms in post-covid condition.</b> Meghann Ryan, MS, University of Maryland</li> <li><b>The effect of estrogen and fentanyl on HIV replication and immune migration across the Blood-Brain Barrier.</b> Maya Basic, MS, University of Florida</li> <li><b>Cocaine impairs anti-viral response in ipsc-microglia to accelerate HIV infection via sigma-1.</b> Tofunmi Oteju, BS, Drexel University College of Medicine</li> <li><b>Fentanyl enhances HIV infection of macrophages and microglia.</b> Qianhao Xiao, PhD, Temple University</li> <li><b>Optimizing HIV neurotherapy with curcumin adjuvant.</b> Sandip P. Godse, MS University of Tennessee Health Science Center</li> <li><b>Sri-47056 a pyrimidine structure-based compound allosterically modulates monoaminergic transporters, attenuating the dysregulation of dopamine and serotonin uptake induced by HIV-1 transactivator of transcription (TAT)</b> Ana Jimenez Torres, PhD, Department of Drug Discovery, College of Pharmacy University of South Carolina</li> <li><b>Myeloid targeted disulfide lipid nanoparticles with enhanced endosomal escape improves HIV-1 excision.</b> Soumya Sagar Dey, MS, University of Nebraska Medical Center</li> <li><b>Incomplete glial recovery despite ART: Insights from scRNAseq in a triple humanized glial mouse model of HIV brain infection.</b> Suresh Kondeti, PhD, University of Nebraska Medical Center</li> <li><b>Effects of methamphetamine (meth) on HIV integration and latency in a cellular microglia model.</b> Wei Ling Lim, PhD, San Diego Biomedical Research Institute</li> </ol>
1:30- 2:00 PM	<b>Dual Event NIH workshop with Program Officers; Grant Writing for Fellowships and Career Awards</b>
2:00– 2:30 PM	<p><b>Plenary Talk</b></p> <p>Jonathan Rockman, Behavior Health and Social Service Providers, Addiction disorders, Omaha, NE  <b>Counseling the opioid crisis and withdrawal syndrome</b></p>
2:30 – 4:00 PM	<p><b>Symposium 4: Development and Delivery of Diagnostic and Therapeutic Biomarkers to the Brain</b>  <b>Chairs:</b> Linda Chang, MD, Professor, University of Maryland School of Medicine and Piotr Walczak, MD, PhD, Professor, University of Maryland School of Medicine  Piotr Walczak, MD, PhD, Professor, Dept of Diagnostic Radiology &amp; Nuclear Medicine, University of Maryland School of Medicine</p> <p><b>Multi-Modality Imaging for Precision Delivery of Cells and Biologics to the Brain</b>  Assaf Gilad, PhD, Professor of Chemical Engineering, Material Sciences and Radiology, Michigan State.  <b>From seaside to bedside: bioengineering proteins for diagnostics and treatment</b>  Chengyan Chu, MD, Research Associate, Diagnostic Radiology-Nuclear Medicine, University of Maryland  <b>Intra-arterial route with osmotic Blood-Brain Barrier opening for enhanced drug delivery to the brain</b>  Wojciech Lesniak, Ph.D., Assistant Professor, Department of Radiology, UT Southwestern Medical Center  <b>Evaluation of brain injuries and neuroinflammation with PET imaging</b></p>
4:00 – 4:15 PM	<b>Break</b>
4:15 – 5:45 PM	<b>Symposium 5: Assessing the Blood Brain Barrier in Neurological Disorders and Inflammation</b>

	<p><b>Chairs:</b> Maria Cecilia Marcondes, PhD, San Diego Biomedical Research Institute, and Yuri Persidsky, MD, PhD, Chair and Professor, Temple University Jennifer Ludicello, PhD, Assistant Professor University of California San Diego San Diego CA</p> <p><b>The signatures of Blood-Brain Barrier disruption in HIV and the effects of Cannabis Use Patterns</b> Silvia Torices, PhD, Scientist, Miami Miller School of Medicine, Miami, FL</p> <p><b>Stroke Vulnerability in the Context of HIV Infection</b> Richard Milner, MD, PhD, Senior Professor, San Diego Biomedical Research Institute, San Diego, CA</p> <p><b>The protective role of microglia to the Blood-Brain Barrier in Aging</b> Violaine Delorme-Walker, PhD, Scientist, San Diego Biomedical Research Institute, San Diego, CA</p> <p><b>Effects of antiretrovirals on the functional integrity of the Blood-Brain Barrier</b> Naveen Mekala, PhD, Post-Doctoral Fellow, Temple University, Philadelphia, PA</p> <p><b>Alcohol and e-cigarette exposure induce release of extracellular vesicles and their plasminogen urokinase content promoting Blood-Brain Barrier injury</b></p>
6:00 - 7:30 PM	<b>General abstracts POSTER Session and Neuroimmune Pharmacology and Therapeutics Dinner</b>
<b>Tuesday, June 10<sup>th</sup></b>	
8:00 – 9:30 AM	<p><b>Symposium 6: Neuroinflammation in the reward pathway of addiction</b></p> <p><b>Chairs:</b> Allison M. Andrews PhD, Associate Professor, University of Florida, Gainesville, FL and Jay McLaughlin PhD, Professor, University of Florida, Gainesville, FL Servio H. Ramirez, PhD, Professor Department of Pathology, Immunology &amp; Laboratory Medicine at the University of Florida College of Medicine, Gainesville, FL</p> <p><b>Neuroinflammatory signatures in the reward pathway following brain injury suggest vulnerability to an enhanced addiction phenotype</b> Cassie Gipson-Reichardt, PhD, Associate Professor University of Kentucky College of Medicine</p> <p><b>Chronic nicotine use suppresses accumbens immune signaling</b> Kristen McLaurin, PhD, Assistant Professor, University of Kentucky College of Pharmacy, Lexington, KY</p> <p><b>HIV-1 and/or opioid use disorder induce functional alterations in microglia</b> Stephanie Daws, PhD, Assistant Professor, Temple University Lewis Katz School of Medicine, Philadelphia, PA</p> <p><b>Targeting neuroinflammatory signaling in the brain for the reduction of opioid-induced phenotypes</b></p>
9:30-10:15	<p><b>Symposium 7: Translational Investigators</b></p> <p><b>Chair:</b> Marcus Kaul, PhD, <i>Professor of Biomedical Sciences, University of California Riverside, CA</i> Yisel Cantres, PhD, Assistant Professor, University of Puerto Rico, PR Myosotys Rodriguez Martinez, PhD, Assistant Professor, Immunology-Nanomedicine, Florida International, Miami, FL Kimberly Williams PhD, Assistant Professor Environmental and Health Sciences Program, Spelman College, Atlanta, GA Pravin Yeapuri PhD, Instructor, University of Nebraska Medical Center</p>
10:15 – 10:30	<b>Break</b>
10:30—12:00	<p><b>Symposium 8: Neuron-glia interaction in the context of HIV and/or drugs of use/misuse</b></p> <p><b>Chairs:</b> Shao-Jun Tang, PhD, Stony Brook Medicine Endowed Professorship in Anesthesiology Vice Chair for Research, Renaissance School of Medicine at Stony Brook University, Stony Brook, NY, and Pamela Knapp, PhD, <i>Professor, School of Medicine, Anatomy and Neurobiology, Virginia Commonwealth University</i> Sheetal Sreeram, MS, Graduate Student, Case Western Reserve University School of Medicine, Cleveland, OH</p> <p><b>HIV-1 Infection of Brain Organoids and METH Exposure Dysregulate Homeostatic Microglia-Neuron-Astrocyte Interactions by Unique Pathways</b> Viktor Yarotsky, PhD, Assistant Professor, Virginia Commonwealth University, Richmond, VA</p> <p><b>Multiple receptor-mediated effects of fentanyl and xylazine on neuronal activity of striatal medium spiny neurons</b> Ming-Lei Guo, PhD, Associate Professor, Eastern Virginia Medical School, Norfolk, VA</p> <p><b>HIV-TAT dysregulates microglial lipid metabolism through SREBP-124 axis: implication of lipid droplet accumulation microglia in neuroHIV</b> Shao-Jun Tang, PhD, Professor, Renaissance School of Medicine at Stony Brook University, Stony Brook, NY</p> <p><b>Interactions between neurons and astrocytes during the pathogenesis of HIV-associated pain</b></p>
12:00 PM	<b>Lunch on your own or Meet the Mentor Lunch</b>
1:00 – 2:30 PM	<p><b>Symposium 9: Nanopharmacology: Nanotechnology-based therapeutics for Infection and Inflammation</b></p> <p><b>Chairs:</b> Supriya D. Mahajan PhD MPH, Associate Professor and Jessica L. Reynolds PhD Associate Professor Jacobs School of Medicine University at Buffalo, Buffalo NY Supriya D. Mahajan PhD, Associate Professor, Department of Medicine, Jacobs School of Medicine &amp; Biomedical Sciences, University at Buffalo, Buffalo, NY</p> <p><b>Nanotechnology approach to target Neuroinflammation</b> Alexander Khmaladze, PhD, Associate Professor, Department of Physics, SUNY Albany, Albany, NY</p>

	<p><b>3D Nano-Imaging at the Sub-Cellular, Cellular and Multicellular Levels</b>  Hilliard Kutscher, PhD, Senior Scientist, POP Biotechnologies, Buffalo, NY  <b>Laser ablation - a unique methodology to nanoformulate HIV antivirals</b>  Anna V. Sharikova PhD Assistant Professor in the Physics department at University at Albany  <b>Raman hyperspectral imaging and analysis of complex biological systems</b></p>
2:30 PM	<b>Omaha Zoo Visit and Carpool or Free afternoon</b>
6:30 – 8:30 pm	<p><b>Banquet</b></p> <p><b>Speaker:</b> Robert Gallo, MD Distinguished Professor University of South Florida and Chair, Scientific Leadership Board of the GVN  <b>Viral Immunology Past, Present and Future</b></p>
<b>Wednesday, June 11<sup>th</sup></b>	
8:00 – 9:30 AM	<p><b>Symposia 10: Advances in the Informatics analyses of Multi-Omics Data to Disentangle the Complex Interactions of HIV Infection with Drugs of use/misuse</b>  <b>Chairs:</b> Jay Rappaport, PhD, Director of the Tulane National Primate Research Center, New Orleans, LA, and Norman J. Haughey, PhD., Professor, Tulane University School of Medicine, New Orleans, LA  Uma Maheswari Deshetty, PhD, Post-Doc University of Nebraska Medical Center, Omaha, NE  <b>Morphine potentiates HIV Tat-mediated neuroinflammation and neurodegeneration</b>  Sabita Roy, PhD, Professor and Vice Chair Department of Surgery, University of Miami, Miami, FL  <b>Single-cell transcriptomics reveals neuron- and glia-specific transcriptional changes in the adolescent midbrain following neonatal morphine exposure, which are ameliorated with probiotic intervention</b>  Qingsheng Li, PhD., Willa Cather Professor Biological Sciences, University of Nebraska Lincoln  <b>Exploring the biology of HIV-1 latency in the CSN as a pathway to developing a cure</b>  Dionna Williams, PhD, Associate Professor, Emory University, Atlanta, GA  <b>Cannabidiol Decreases HIV/SIV Infection, Reduces the Latent Viral Reservoir, and Suppresses Inflammatory Cytokines in Rhesus Macaques and in vitro studies with Primary Human Cells</b></p>
10:00 – 10:30 AM	<p><b>Bill Narayan Memorial Lecture</b></p> <p>Howard Fox, PhD, Professor, University of Nebraska Medical Center, Omaha, NE  <b>Omics unleashed: revolutionizing neuroimmune pharmacology with data-driven science</b></p>
10:30- 10:45 AM	<b>Break</b>
10:45 – 12:00 Noon	<p><b>Symposium 11: SNIP member symposium</b>  <b>Chair:</b> Richard J. Noel, PhD., Professor of Biochemistry, Department of Basic Sciences, Ponce Health Sciences University  Selected talks from general abstracts</p>
12:00-1:00 PM	<p><b>SNIP Business Meeting for members</b>  Lunch on your own</p>
1:30-3:00pm	<p><b>Symposium 12: Local organizing committee symposium</b>  <b>Chair:</b> Prasanta Dash, PhD, Associate Professor, Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE  Prasanta K. Dash, PhD., Assistant Professor, University of Nebraska Medical Center  <b>Accelerated Dysregulation of Neuroimmune Markers in HIV-infected and Aged Humanized Mice</b>  Han-Jun Wang, MD., Endowed Professor in the Department of Anesthesiology, UNMC  <b>Neural Mechanisms underlying Cardiac Dysfunction and Cardiac Remodeling in Chronic Heart Failure</b>  Sowmya Yelamanchili, PhD., Associate Professor, Department of Anesthesiology, UNMC  <b>Pathogenesis and therapeutic insights into degenerative and substance use disorders</b>  Chen Zhang, PhD., Post-doctoral fellow, Pharmacology and Experimental Neuroscience, UNMC  <b>Molecular Signatures in Rebound Viruses from Antiretroviral Drug and CRISPR Treated HIV-1-Infected Humanized Mice</b>  Arpan Acharya, PhD., Assistant Professor, Pharmacology and Experimental Neuroscience, UNMC  <b>Ageing and Reservoirs in Persons Living with HIV (PLWH)</b></p>
3:00 PM	<b>End of Conference</b>