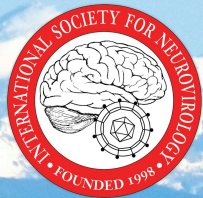


20th International Symposium on **NeuroVirology**



Held jointly with the

2025 Conference on HIV in the Nervous System

AGENDA

June 2-5, 2025
Westin Denver Downtown
Denver, Colorado, USA

Local Organizing Committee

Maria Nagel (Co-Chair)
Ken Tyler (Co-Chair)

Andrew Bubak
Penny Clarke

Ravi Mahalingam
Christy Niemeyer

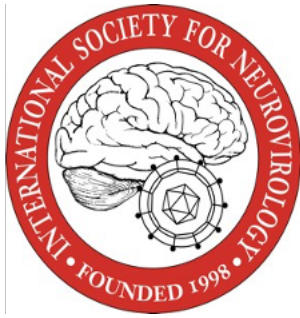
ISNV Meetings Committee

Lynn Pulliam (Co-Chair)
Brian Wigdahl (Co-Chair)
Lena Al-Harhi

Bruce Brew
Tory Johnson
Dianne Langford

Avindra Nath
Michael Nonnemacher
Christopher Power

Shilpa Buch
Valerie Wojna
Walter Royal, III



Agenda for the 20th International Symposium on NeuroVirology and 2025 Conference on HIV in the Nervous System

This stimulating meeting, which will highlight new findings and accomplishments in some of the most important areas of research in neurovirology, will be held in Denver, Colorado USA from June 2 to 5, 2025.

All times are Mountain Daylight Time (MDT)

Monday June 2, 2025

1:00 PM **Meeting Registration**

2:00PM – **Welcome**
2:10PM Walter Royal, III, President, International Society for Neurovirology (ISNV)

Special Session **Multimodal Integrated Analysis and Assessment Development for NeuroHIV Outcomes (MIAAD-NHIV) / Overview and Updates**

2:15PM – Scott Letendre
3:30PM University of California, San Diego, San Diego, CA

Robert Paul
Missouri Institute of Mental Health, St. Louis, MO

Special Session **National NeuroHIV Tissue Consortium (NTCC) / Overview and Updates**

3:30PM – **Function of the NNTC**
4:30PM Howard Fox
University of Nebraska Medical Center, Omaha, NE

Recent additions to the NNTC and how it can support research
Scott Letendre
University of California, San Diego, San Diego, CA

Use of the NNTC in requestor research
Lish Ndhlovu
Weill Cornell Medical College, New York, NY

NNTC Panel Discussion
Drs. Fox, Letendre, and Ndhlovu

5:00PM – **Welcome Reception**
6:30PM

Tuesday June 3, 2025

8:00AM – **Continental Breakfast**
9:00AM

9:00AM- **Opening Remarks**
9:15AM Lynn Pulliam, Meetings Committee Co-chair

Session 1: Global Neurovirology/Re-emerging Pathogens

Session Chair: Avi Nath

9:15AM-9:45 AM Vincent Racaniello (Plenary)
Columbia University Medical Center, New York, NY
Hard lessons from poliovirus

9:45AM – 10:15AM Amy Rosenfeld (Plenary)
Food and Drug Administration, Silver Spring, MD
Cross-reactive anti-enterovirus immune response

10:15AM – 10:30AM **Coffee Break**

Session 2: Herpesviruses and neurological diseases

Session Chairs: Ken Tyler and Andrew Bubak

10:30AM – 11:00AM Diego Restrepo (Plenary)
University of Colorado, Aurora, CO
Does alphaherpes virus infection and reactivation of the olfactory system accelerate Alzheimer's disease?

11:00AM – 11:15AM Ilker Sariyer
Lewis Katz School of Medicine at Temple University, Philadelphia, PA
CRISPR-Cas9-Mediated Genome Editing via AAV Vectors Suppresses HSV-1 Infection and Reactivation in 2D, 3D Culture Models, and a Latent Rabbit Keratitis Model

11:15AM – 11:30AM Christy Niemeyer
University of Colorado School of Medicine, Aurora, CO
Regional and Epigenetic Microglial Responses to HSV-1 Infection: Implications for Neurodegeneration

11:30AM – 11:45PM Maria Nagel
University of Colorado School of Medicine, Aurora, CO
The evolving clinical presentations of herpesvirus infections

11:45AM – 1:30PM **LUNCH (on your own)**

Session 3: Virus-associated chronic conditions

Session Chairs: Bruce Brew and Walter Royal, III

1:30PM-2:00PM Michael Peluso (Plenary)
Zuckerberg San Francisco General Hospital/UCSF, San Francisco, CA
Neurologic Long Covid: progress in pathogenesis and therapeutic research

2:00PM – 2:15PM Ron Ellis
University of California, San Diego
CSF and Plasma Biomarkers of Neuroinflammation Predict Neurocognitive Performance in HIV: A Longitudinal Analysis

2:15PM – 2:30PM Anna Bellizzi
Lewis Katz School of Medicine at Temple University, Philadelphia, PA
Regulation of Circular RNAs in PBMCs from People with HIV and Human Cerebral Organoids: Implications for HIV-Associated Neurocognitive Disorders

2:30PM – 2:45PM **Coffee Break**

Session 4: Investigators-in-Training (Part I)

Session Chairs: Jay Rappaport and Valerie Wojna

- 2:45PM – Shirley Barrera
3:00PM Drexel University College of Medicine, Philadelphia, PA
Making a better handle: Designing a computational tool for improving CRISPR-associated HIV-1 proviral targeting via sgRNA tracrRNA design
- 3:00PM – Barbara Hanson
3:15PM Northwestern University Feinberg School of Medicine, Chicago, IL
Human Pegivirus alters immune and transcriptomic profiles in the brain and blood of Parkinson's Disease patients
- 3:15PM – Angela Rocchi
3:30PM Lewis Katz School of Medicine at Temple University, Philadelphia, PA
CRISPR antiviral inhibits neurotrophic JC polyomavirus in two- and three-dimensional models through dual-gRNA excision by SaCas9
- 3:30PM – Uma Mahesari Deshetty
3:45PM University of Nebraska Medical Center, Omaha, NE
Prophylactic effect of a small molecule, C381 in alleviating HIV Tat-induced microglial activation and neuroinflammation
- 4:30PM – **Mentorship Event (Platte River)**
6:00PM

Wednesday, June 4, 2025

- 8:00AM – **Continental Breakfast**
9:00AM

Session 5: New Technologies/Initiatives

Session Chairs: Lynn Pulliam and Michael Nonnemacher

- 9:00AM – Dana Cairns (Plenary)
9:30AM Tufts University, Boston, MA
Using a 3D human brain-like tissue model to explore the role of herpesviruses in the pathogenesis of Alzheimer's Disease
- 9:30AM – Christina Guzzo (Plenary)
10:00AM University of Toronto, Toronto, Ontario, CA
Expanding the virologist's toolbox: looking at viruses from the outside-in with new advances in flow virometry

Special Lecture HIV and Aging Overview and Updates

- 10:00AM – Leslie Marshall
10:30AM NIH Office of AIDS Research, Rockville, MD
Aging with HIV: Insights from the NIH Research Response Past and Present
- 10:30AM – **Coffee Break**
10:45AM

Session 6: Role of Viruses in Aging/Dementias and Psychiatric Disorders

Session Chairs: Jonathan Geiger and Ron Ellis

- 10:45AM – Keenan Walker (Plenary)
11:15AM NIH National Institute on Aging, Rockville, MD
Understanding the molecular link between peripheral infection and dementia risk
- 11:15AM – Amanda Brown
11:30AM The Johns Hopkins University School of Medicine, Baltimore, MD
Alzheimer's Disease-like Pathology in HIV-Infected Humanized Mice and Regulation by Osteopontin/Secreted Phosphoprotein-1
- 11:30AM – Xuesong Chen
11:45AM University of North Dakota, Grand Forks, ND
TLR7 mediates HIV-1 Tat-induced cellular senescence in human astrocytes
- 11:45AM – Boe-Huyn Kim
12:00PM Icahn School of Medicine at Mount Sinai, New York, NY
The effect of oligomer amyloid- β on memory deterioration in the preclinical stage of HIV-infected mice
- 12:00PM – **LUNCH (on your own)**
1:30PM

Session 7: NeuroHIV and Co-morbidities (including DOA)

Session Chairs: Dianne Langford and Peter Gaskill

- 1:30PM – Ryan Ross (Plenary)
2:00PM Rush University Medical Center, Chicago, IL
Musculoskeletal aging in people living with HIV: impact of changing antiretroviral prescription recommendations
- 2:00PM – Kelly Jordan-Sciutto
2:15PM Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA
HIV antiretroviral drugs trigger stress granule formation via integrated stress response in oligodendrocytes
- 2:15PM – Jonathan Geiger
2:30PM University of North Dakota, Grand Forks, ND
TRPML1-redox sensing regulates gp120-mediated changes to levels of cellular iron and reactive species
- 2:30PM – Yoelvis Garcia-Mesa
2:45PM Case Western Reserve University, Cleveland, OH
iPSC-Derived Brain Cells and Brain Organoids to Model Polysubstance Use in the Context of HIV
- 2:45PM – Gaurav Datta
3:00PM University of North Dakota, Grand Forks, ND
Role of endolysosomal oxidative stress in HIV-1 Tat-induced neuronal injury
- 3:00PM – **Coffee Break**
3:15PM

Session 8: Investigators-In-Training (Part 2)

Session Chairs: Jay Rappaport and Kelly Jordan-Sciutto

- 3:15PM – Caitlin Hills
3:30PM Albert Einstein College of Medicine, Bronx, NY
The Role of Inflammation, the Kynurenine Pathway, and Blood-Brain Barrier Disruption in Depression Pathogenesis in People with HIV
- 3:30PM – Fergan Imbert
3:45PM Rowan University School of Osteopathic Medicine, Stratford, NJ
SUMO Proteomic Analyses Identify HIV Latency-Associated Proteins in Microglia
- 3:45PM – Catherine DeMarino
4:00PM National Institutes of Health, NINDS, Bethesda, MD
HIV-Nef in serum is a biomarker for microvascular disease and causes endothelial cell damage and neurotoxicity
- 4:00PM – Morgan L. Davis
4:15PM St. Jude Children's Research Hospital, Memphis, TN
Neuroinvasion of highly pathogenic avian influenza A(H5N1) viruses of clade 2.3.4.4b
- 4:15PM – Hang up posters
5:00PM
- 5:00PM – **POSTER SESSION**
7:00PM **Presentation of all submitted abstracts accepted for the meeting**
Odd number posters will present the first hour
Even number posters will present the second hour

Thursday, June 5, 2025

- 8:00AM – **Continental Breakfast**
9:00AM

Special Lecture Artificial Intelligence in Medicine and Biomedical Research

Introduction: Igor Koralnik

- 9:00AM – Yuan Luo
9:30AM Northwestern Feinberg School of Medicine, Chicago, IL
Harnessing Multi-modal AI to complete the bench to bedside loop in healthcare

Special Lecture Donald and Audrey Gilden Lectureship

Introduction: Ravi Mahalingam

- 9:30AM – Andrew Bubak
10:00AM University of Colorado School of Medicine, Aurora, CO
The Hidden Role of VZV Reactivation in Neurodegenerative Diseases and Stroke

- 10:00AM - **Coffee break**
10:15AM

Session 9: Exosomes – Biomarkers and Therapy

Session Chairs: Tory Johnson and Shilpa Buch

- 10:15AM – Tsuneya Ikezu (Plenary)
10:45AM Mayo Clinic, Jacksonville, FL
Extracellular Vesicles – Biomarkers and Therapy in Neurological Disorders

- 10:45AM - Fatah Kashanchi
11:00AM George Mason University, Manassas, VA
Extracellular vesicle purification methods identify distinct infectious particles released from HIV-1- infected T-cells
- 11:00AM – Diehl R. DeSouza
11:15AM National Institutes of Health/NINDS, Bethesda, MD
Extracellular vesicle-associated HIV Tat is associated with cognitive impairment and learning deficiencies
- 11:15AM – Heather Branscome
11:30AM ATCC, Manassas, VA
A Scalable Platform for Producing and Preserving Stem Cell Extracellular Vesicles with Reparative Properties
- 11:30AM – **LUNCH (on your own)**
1:30PM **Board of Directors meeting**

Session 10: HIV persistence therapy and cure in the brain

Session Chairs: Kamel Khalili and Fatah Kashanchi

- 1:30 PM- Benjamin Chen (Plenary)
2:00PM Icahn School of Medicine at Mt. Sinai, New York, NY
Humanized mouse models to monitor latent and active HIV infection in the peripheral immune system and CNS
- 2:00PM - Rebecca Veenhuis
2:15PM The Johns Hopkins University School of Medicine, Baltimore, MD
Women with HIV have a lower frequency of monocyte reservoir reactivation compared to men with HIV
- 2:15PM – Darshan Pandya
2:30PM National Institutes of Health, NINDS, Bethesda, MD
Cerebrospinal fluid cytokine expression in virologically controlled PWH and associations with neurological measures
- 2:30PM – Laura Cheney
2:45PM Albert Einstein College of Medicine, Bronx, NY
Antiretroviral drugs may affect autophagic processes in primary human astrocytes differently, contributing to HIV-NCI
- 2:45 pm – **Coffee Break**
3:00pm

Session 11: Special Topics in Neurovirology

Session Chairs: Ilker Sariyer and Anna Bellizzi

- 3:00PM - Mahmut Safak
3:15PM Lewis Katz School of Medicine at Temple University, Philadelphia, PA
The Human Neurotropic Polyomavirus, JC Virus, Small Tumor Antigen Promotes S Phase Entry and Cell Cycle Progression
- 3:15PM – Michael Rudy
3:30PM University of Colorado School of Medicine, Aurora, CO
EV68-228-N monoclonal antibody treatment halts progression of paralysis in a mouse model of EV-D68 induced acute flaccid myelitis

- 3:30PM - Matthew Elrick
3:45PM Kennedy Krieger Institute, Baltimore, MD
Enterovirus D68 2A protease causes nuclear pore complex dysfunction and motor neuron toxicity
- 3:45PM - Brian Schaefer
4:00PM Uniformed Services University, Bethesda, MD
A BSL-2 pre-clinical murine model to investigate henipavirus in vivo biology and candidate therapeutics
- 6:00PM – **PIONEER AWARDS DINNER**
7:30PM
 - Dinner
 - Presentation of trainee awards
 - Announcement of the Pioneer in Neurovirology award
 - Closing remarks

