

11th International Symposium on NeuroVirology

held jointly with the



2012 Conference on HIV in the Nervous System

Grand Hyatt New York
New York, New York
May 29 to June 2

ISNV Meetings Committee

Brian Wigdahl (Chair)
Steven Jacobson
Pasquale Ferrante

Robert Fujinami
Jennifer Gordon
Lynn Pulliam

Walter Royal, III
Israel Steiner

Organizing Committee

David Volsky (Chair)
Joan Berman
Susan Morgello

David Simpson
Kamel Khalili
Avindra Nath

Lynn Pulliam
Brian Wigdahl

AGENDA

11TH INTERNATIONAL SYMPOSIUM ON NEUROVIROLOGY & 2012 CONFERENCE ON HIV IN THE NERVOUS SYSTEM



The 11th International Symposium on NeuroVirology and 2012 Conference on HIV in the Nervous System will be held jointly at the Grand Hyatt New York in New York City, New York, USA. The overall goal of these concurrent events will be to provide investigators working in the field of neurovirology and related areas with leading edge information so that important gaps in knowledge can continue to be identified. Armed with this information, attendees of both events will work toward formulating questions and experimental directions that will enhance the development of new preventative and therapeutic strategies effective against neurologic diseases associated with prions, HIV, and other viral and non-viral pathogens.

Shading indicates presentations associated specifically with the 2012 Conference on HIV in the Nervous System. For more information about both meetings, visit the ISNV web site (www.isnv.org/newyork12/).

All Symposium and Conference events will take place in the Grand Hyatt New York. The main sessions, Lectureship presentations, and Investigator-in-Training sessions will be held in the Empire State Ballroom III. Continental breakfasts and coffee breaks will be hosted in the Empire State Ballroom III Foyer. Other events will take place as indicated on the agenda.

Tuesday, May 29, 2012

Global NeuroAIDS Roundtable

(an independent event held in conjunction with the Conference and Symposium)

Empire State Ballroom I

12:30 pm - 12:40 pm

Meeting Overview by Jeymohan Joseph (NIMH, NIH)

12:40 pm - 1:50 pm

Africa Region Roundtable

Session Chair: Lynn Pulliam

Ned Sacktor

East Africa: Uganda

Michael Boivin

Georgette Kanmogne

West Africa: Cameroon

David Clifford

West Africa: Senegal, Gambia

Amadou Gallo-Diop

Walter Royal, III

West Africa: Nigeria

Robert Paul

Southern Africa: South Africa

Charles Wood

Southern Africa: Zambia

1:50 pm - 2:50 pm

Asia Region Roundtable

Session Chair: Brian Wigdahl

Thomas Marcotte

India

Mahendra Kumar

Carlos Pardo

Robert Heaton

China

Scott Letendre

Pasiri Sithinamsuwan

Thailand

2:50 pm - 3:10 pm

Break

3:10 pm - 4:00 pm	Latin America, Eastern Europe, and Global Multi-Site NeuroAIDS Studies Roundtable Session Chair: Avindra Nath David Smith <i>Multi-Site Clade Studies (Brazil, China, India, Romania)</i> Ron Ellis Cristian Achim <i>Romania</i> Kevin Robertson <i>A5199</i> Bruce Brew <i>APNAC</i>
4:00 pm - 5:00 pm	Future Directions Session Session Co-Chairs: Igor Grant, David Clifford, and Victor Valcour
5:00 pm - 8:00 pm	Registration for the 11th International Symposium on NeuroVirology <i>Empire State Ballroom II Foyer</i>
7:00 pm - 9:00 pm	Opening Reception <i>Empire State Ballroom II</i>

Wednesday, May 30, 2012

7:00 am - 8:00 am	Continental Breakfast												
8:00 am - 8:30 am	Welcoming Remarks												
8:30 am - 9:45 am	<table> <tr> <td>Session I</td><td>Brain as a reservoir for HIV</td></tr> <tr> <td></td><td>Session Chairs: David Volsky and Bruce Brew</td></tr> <tr> <td>8:30 am</td><td>Christopher Power (Plenary) University of Alberta, Edmonton, Alberta, Canada <i>Brain lentivirus burden and neurovirulence-strategies for establishing a fine balance</i></td></tr> <tr> <td>9:00 am</td><td>Wenxue Li National Institute of Neurological Diseases and Stroke, National Institutes of Health, Bethesda, MD, USA <i>Activation of HERV-K expression by HIV-1 infection</i></td></tr> <tr> <td>9:15 am</td><td>David Alvarez-Carbonell Case Western Reserve University, Cleveland, OH, USA <i>The Nurr1/CoREST transrepression pathway impairs HIV reactivation in latently infected microglial cells</i></td></tr> <tr> <td>9:30 am</td><td>Andrew MacLean Tulane University, New Orleans, LA, USA <i>Priming the pump: Tat primes astrocytes for subsequent cytokine secretion, quantitative morphological changes and BBB disruption through TLR2</i></td></tr> </table>	Session I	Brain as a reservoir for HIV		Session Chairs: David Volsky and Bruce Brew	8:30 am	Christopher Power (Plenary) University of Alberta, Edmonton, Alberta, Canada <i>Brain lentivirus burden and neurovirulence-strategies for establishing a fine balance</i>	9:00 am	Wenxue Li National Institute of Neurological Diseases and Stroke, National Institutes of Health, Bethesda, MD, USA <i>Activation of HERV-K expression by HIV-1 infection</i>	9:15 am	David Alvarez-Carbonell Case Western Reserve University, Cleveland, OH, USA <i>The Nurr1/CoREST transrepression pathway impairs HIV reactivation in latently infected microglial cells</i>	9:30 am	Andrew MacLean Tulane University, New Orleans, LA, USA <i>Priming the pump: Tat primes astrocytes for subsequent cytokine secretion, quantitative morphological changes and BBB disruption through TLR2</i>
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10:35 am - 11:50 am	Session II	Neuroimaging and surrogate markers in HAND
		Session Chairs: Kelly Jordan-Sciutto and Ron Ellis
10:35 am	Ramon Gilberto Gonzalez (Plenary) Massachusetts General Hospital, Boston, MA, USA	<i>Neuroimaging of brain viral dynamics and neuronal injury in HAND</i>
11:05 am	Vanessa Pirrone Drexel University College of Medicine, Philadelphia, PA, USA	<i>Impact of age on markers of HIV-1 disease</i>
11:20 am	James T. Becker University of Pittsburgh, Pittsburgh, PA, USA	<i>MEG-identified recovery of CNS functional connectivity in HIV disease after HAART</i>
11:35 am	Carlos Barrero Temple University School of Medicine, Philadelphia, PA, USA	<i>SILAC-based quantitative proteomic approach to identify HIV-1 Vpr mediated changes in macrophage metabolic pathways</i>
11:50 am - 1:20 pm	Lunch Break / Networking	
1:20 pm - 2:35 pm	Session III	Neurobehavioral challenges and therapeutic advances
		Session Chairs: Victor Valcour, Olimpia Meucci
1:20 pm	Fatah Kashanchi (Plenary) George Mason University, Manassas, VA, USA	<i>Viral miRNA and exosomes: Possible control of cellular signaling pathways in uninfected cells</i>
1:50 pm	José A. Muñoz-Moreno Germans Trias i Pujol University Hospital, Barcelona, Spain	<i>Differences in North American and West European study populations when detecting neurocognitive impairment in HIV infection: A comparison of three screening methods</i>
2:05 pm	Walter Royal, III University of Maryland School of Medicine, Baltimore, MD, USA	<i>Neurocognitive impairment among treatment-naïve, HIV-infected individuals in Nigeria</i>
2:20 pm	JoEllyn McMillan University of Nebraska Medical Center, Omaha, NE, USA	<i>Cell-targeted long-acting nanoformulated antiretroviral therapy</i>
2:35 pm - 3:05 pm	Special Lecture	2012 Women in Neuroscience Lectureship
		Introduction by Eugene O. Major
	Joan W. Berman Albert Einstein College of Medicine, Bronx, NY, USA	<i>Mechanisms of neuroinflammation and toxicity: Critical roles in NeuroAIDS</i>
3:05 pm - 3:25 pm	Coffee Break	
3:25 pm - 4:40 pm	Session IV	Viral latency, molecular pathogenesis, and malignancy
		Session Chairs: Giulio Tarro and Igor Koralnik

3:25 pm	Charles S. Cobbs (Plenary) California Pacific Medical Center, San Francisco, CA, USA	<i>Emerging role of cytomegalovirus in malignant glioma</i>
3:55 pm	Xin Dang Beth Israel Deaconess Medical Center, Boston, MA, USA	<i>JC virus encephalopathy is associated with a novel Agnoprotein-deletion JCV variant</i>
4:10 pm	Te Du University of Chicago, Chicago, IL, USA	<i>The activation of latent herpes simplex virus and suppression of LAT and mi-RNAs in trigeminal ganglia within the time- frame of a single cycle of viral replication</i>
4:25 pm	Benjamin Gelman University of Texas Medical Branch, Galveston, TX, USA	<i>HIV latency and viral DNA caches in the human brain: Post- integration DNA is highest in specimens obtained prior to HAART and is enriched in white matter</i>
7:00 pm - 9:30 pm	Special Activity	Women in NeuroVirology Reception <i>Regency Room</i>
	Panel Discussion	Moderator: Joan Berman Panelists: Shilpa Buch, Jennifer Gordon, Diane Lawrence, Aimee Luers, and Susan Morgello

Thursday, May 31, 2012

7:00 am - 8:00 am	Continental Breakfast	
8:00 am - 9:15 am	Session V	Chronic immune reactivation and leukocyte trafficking Session Chairs: Joan Berman and Jay Rappaport
8:00 am	Steven D. Douglas (Plenary) The Children's Hospital of Philadelphia, Philadelphia, PA, USA	<i>The neurokinin-1 receptor and substance P: Modulation of HIV/SIV immune reactivation and leukocyte trafficking</i>
8:30 am	Donald Gilden University of Colorado Denver School of Medicine, Aurora, CO, USA	<i>The immune repertoire in varicella zoster virus (VZV) vasculopathy and its association with VZV-induced cerebrovascular remodeling</i>
8:45 am	Georgette Kanmogne University of Nebraska Medical Center, Omaha, NE, USA	<i>HIV-1 induces cytoskeletal alteration and reorganization during endothelial-monocyte interactions: Modulatory role of CCR5</i>
9:00 am	Yuri Persidsky Temple University School of Medicine, Philadelphia, PA, USA	<i>Inhibition of poly(ADP-ribose) polymerase (PARP)-1 protects blood brain barrier in HIV CNS infection</i>
9:15 am - 9:45 am	Special Lecture	2012 Paradigm Builder Lectureship Introduction by David Volsky
	Michael G. Katze University of Washington, Seattle, WA, USA	<i>Systems biology as a new approach for comprehensive studies of viral pathogenesis – But where are Google and IBM?</i>

9:45 am - 10:05 am Coffee Break

10:05 am - 11:20 am

Special Activity

Investigators-in-Training (Part I)

Session Chairs: Walter Royal, III, and Ruth Brack-Werner

10:05 am Stephanie James
Postdoctoral Fellow,
University of Colorado
School of Medicine, Aurora,
CO, USA

*VZV infection of human brain vascular adventitial fibroblasts
down-regulates STAT mRNA expression and inhibits
translocation of pSTAT to the nucleus*

10:20 am Laura Ellis
Graduate Student, Beth Israel
Deaconess Medical Center,
Boston, MA, USA

*Role of agnogene deletion and archetype-like regulatory
region in a JCV strain isolated from the brain of a patient
with JCV Encephalopathy (JCVE)*

10:35 am Matthew Cusick
Postdoctoral Fellow,
University of Utah, Salt Lake
City, UT, USA

*Macrophage infiltration of the brain in Theiler's virus
infection contributes to the development of seizures*

10:50 am Amrita Datta Chaudhuri
Graduate Student, University
of Nebraska Medical Center,
Omaha, NE, USA

*Up-regulation of neuronal microRNA-142 in HIVE/SIVE
leads to a decrease in monoamine oxidase A expression and
activity by inhibiting SIRT1*

11:05 am Sarah Berth
Graduate Student, University
of Illinois Chicago, Chicago,
IL, USA

*The HIV glycoprotein gp120 impairs fast axonal transport
through an axon-autonomous mechanism*

11:20 am - 12:35 pm

Session VI

Immunopathogenesis of viral infections

Session Chairs: Shilpa Buch and Carlos Pardo

11:20 am Robert F. Siliciano (Plenary)
The Johns Hopkins
University School of
Medicine, Baltimore, MD,
USA

*New insights into highly active antiretroviral therapy for HIV
infection: How HAART really works*

11:50 am Glenn Rall
Fox Chase Cancer Center,
Philadelphia, PA, USA

*Distinct interferon responses in neurons may contribute to
survival during viral infection*

12:05 pm Monique Anderson
National Institute of
Neurological Diseases and
Stroke, National Institutes of
Health, Bethesda, MD, USA

*Characterization and behavior of T regulatory cells in HTLV-
1 associated myelopathy / tropical spastic paraparesis*

12:20 pm Yamil Gerena
University of Puerto Rico
Medical Sciences Campus,
San Juan, Puerto Rico

*Secretion of soluble insulin receptor from human neuronal
cells exposed to the cerebrospinal fluid from HIV-seropositive
women correlates with cognitive performance*

12:35 pm - 2:10 pm

Lunch Break / Networking

12:35 pm - 2:10 pm

ISNV Board of Directors Meeting

Majestic Board Room

2:10 pm - 6:00 pm

Poster Set-up

Empire State Ballroom IV-V

2:10 pm - 3:25 pm

Workshop I

Uris and Juilliard Rooms

Intersection of Substance Abuse and HIV in the CNS

Session Chairs: Diane Lawrence and Roger Sorensen

Panel discussions on topic areas related to substance use and HIV (Igor Grant, Brian Wigdahl, Avindra Nath, Joan Berman, Kurt Hauser, and Shilpa Buch)

2:10 pm

NIDA Staff

Workshop Overview

2:15 pm

Panel A

(led by Joan Berman)

Jacqueline Coley
Albert Einstein College of
Medicine, Bronx, NY, USA

Myosotys Rodriguez-
Martinez
Universidad del Valle School
of Medicine, Cali, Columbia

Santosh Kumar
University of Missouri-
Kansas City School of
Pharmacy, Kansas City, MO,
USA

Regulation of glial function and inflammation

*Dopamine mediated changes in blood-brain barrier and
neuroinflammation in the context of CNS HIV infection and
substance abuse*

*Methadone and buprenorphine modulation on HIV-1
infection, inflammation, and neurotoxicity*

*Central role of cytochrome P450 2A6 in tobacco-mediated
oxidative stress in macrophages and astrocytes*

2:35 pm

Panel B

(led by Avindra Nath)

Paula Desplats
University of California, San
Diego, San Diego, CA, USA

Joyce Velez
University of Puerto Rico
Medical Sciences Campus,
San Juan, Puerto Rico

Jonathan Pitcher
Drexel University College of
Medicine, Philadelphia, PA,
USA

Erick Tatro
University of California San
Diego, San Diego, CA, USA

Molecular signaling in the CNS

*Effects of methamphetamine on the epigenetic regulation of
HIV-1 in the human brain*

Cocaine and marijuana alter lipidomics in HAND

*Elevated ferritin heavy chain and dysregulated
CXCL12/CXCR4 signaling within cortical neurons of drug
abusers and HIV+ individuals*

*MicroRNA-9 is increased in CNS neurons in the HIV-infected
brain and in methamphetamine exposure*

2:55 pm

Panel C

(led by Igor Grant)

Erica Weber
University of California, San
Diego, San Diego, CA, USA

Behavioral outcomes of HIV and substance use

*Methamphetamine use exacerbates HIV-associated
neurocognitive impairment in acute and early HIV infection*

	Brook Henry University of California San Diego, San Diego, CA, USA	<i>A Tale of Mice and Men: Translational cross-species assessment of inhibitory deficits in HIV and comorbid methamphetamine dependence using a novel human open-field paradigm</i>
	Svetlana Semenova University of California, San Diego, San Diego, CA, USA	<i>Expression of HIV gp120 protein increases sensitivity to the rewarding properties of methamphetamine in mice</i>
3:15 pm	Wrap Up / Future Directions	
2:10 pm - 3:25 pm	Workshop II <i>Broadway Room</i>	Demyelinating disease pathogenesis (including MS) and polyomaviruses
		Session Chairs: Robert Fujinami and Walter Royal, III
2:10 pm	Emily Leibovitch National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, USA	<i>HHV-6A infection enhances EAE severity in the common marmoset</i>
2:35 pm	Elodie Brison INRS-Institut Armand-Frappier, Laval, Quebec, Canada	<i>Glutamate excitotoxicity is involved in motor dysfunction and paralysis following infection by a human respiratory corona virus</i>
2:50 pm	Alejandra Borjabad St. Lukes-Roosevelt Hospital Center, Columbia University, New York, NY, USA	<i>Common transcriptional signatures in HIV-1-Associated Neurocognitive Disorder, Alzheimer's Disease, and Multiple Sclerosis: Comparison with a mouse model of HAND</i>
3:05 pm	Armine Darbinyan Temple University School of Medicine, Philadelphia, PA, USA	<i>Polyomavirus JC infection of human oligodendrocyte progenitor cells dysregulates production of chemokines and alters differentiation of oligodendrocytes</i>
3:25 pm - 3:45 pm	Coffee Break	
3:45 pm - 5:00 pm	Session VII	Neural injury and neurorestoration
		Session Chairs: Lena Al-Harathi and Dennis Kolson
3:45 pm	Marcus Kaul (Plenary) Sanford-Burnham Medical Research Institute, La Jolla, CA, USA	<i>To prevent or repair HIV-associated brain injury</i>
4:15 pm	Eliseo Eugenin University of Medicine and Dentistry, New Jersey - New Jersey Medical School, Newark, NJ, USA	<i>Identification of intracellular toxic signals required for bystander killing through gap junctions from HIV-infected astrocytes to uninfected astrocytes</i>
4:30 pm	Jennifer Gordon Temple University School of Medicine, Philadelphia, PA, USA	<i>The impact of HIV-1 Tat on Pur-alpha mediated regulation of dendritic RhoA signaling</i>

4:45 pm	Andrew Levine National Neurological AIDS Bank, Los Angeles, CA, USA	<i>Longitudinal analysis of interactive effects of host genotype, stimulant use, and HIV status upon neurocognitive functioning</i>
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6:00 pm - 9:00 pm **Poster Session / Reception**
Empire State Ballroom IV-V and Foyer

Friday, June 1, 2012

7:00 am - 8:00 am **Continental Breakfast**

8:00 am - 9:15 am **Session VIII**

Emerging CNS infections and detection

Session Chairs: Laura Manuelidis and Pasquale Ferrante

8:00 am	W. Ian Lipkin (Plenary) Columbia University Mailman School of Public Health, New York, NY, USA
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Microbe hunting

8:30 am	Beatriz Parra Universidad del Valle, Cali, Colombia
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Systemic reactivation of Epstein Bar Virus (EBV) correlates with the magnitude of parenchymal brain abnormalities in AIDS-associated CNS opportunistic infections

8:45 am	Francesca Peruzzi Louisiana State University Health Sciences Center, New Orleans, LA, USA
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CSF microRNAs in HIV-associated neurological disorders

9:00 am	Maria Chiara Monaco National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, USA
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CD34+ hematopoietic progenitor cells are a reservoir for JC virus in CD34+ natalizumab-treated MS patients

9:15 am - 9:45 am **Special Lecture**

2012 Audrey Steinman Gilden Lectureship

Introduction by Richard Johnson

Peter G. E. Kennedy University of Glasgow, Southern General Hospital, Glasgow, UK
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The enigma of varicella-zoster virus latency

9:45 am - 10:05 am **Coffee Break**

10:05 am - 10:50 am **Special Activity**

Investigators-in-Training (Part II)

Session Chairs: Antonina Dolei and Robert Fujinami

10:05 am	Bradley Hollidge Graduate Student, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, USA
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Recombinant La Crosse viruses with mutations in the fusion peptide region are less neuroinvasive, but remain neurotoxic

10:20 am	Camilla Carloni Graduate Student, University of Milan, Milan, Italy
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JC virus load in cerebrospinal fluid and transcriptional control region rearrangements may predict the clinical course of progressive multifocal leukoencephalopathy

10:35 am	Manohar Mutnal Postdoctoral Research Associate, University of Minnesota, Minneapolis, MN, USA	<i>Persistent humoral immune responses in the CNS limit recovery of reactivated murine cytomegalovirus</i>
10:50 am - 12:05 pm	Session IX	Neurodegeneration
		Session Chairs: Dianne Langford and Rick Meeker
10:50 am	Thomas Wisniewski (Plenary) New York University Pearl Barlow Center for Memory Evaluation and Treatment, New York, NY, USA	<i>Infectious neurodegenerative disorders</i>
11:20 am	Michal Toborek University of Miami Miller School of Medicine, Miami, FL, USA	<i>Interactions of HIV-1 with amyloid beta peptide at the blood-brain barrier level</i>
11:35 am	Shao-Jun Tang University of Texas Medical Branch, Galveston, TX, USA	<i>Wnt signaling and NeuroAIDS</i>
11:50 am	Mady Hornig Columbia University Mailman School of Public Health, New York, NY, USA	<i>Hippocampal dysgenesis in a model of gestational virus infection</i>
12:05 pm - 1:35 pm	Lunch Break / Networking	
1:35 pm - 2:50 pm	Workshop III	NeuroAIDS NRSA (T32) Trainee Workshop
		Session Chairs: Brian Wigdahl and Jay Rappaport
1:35 pm	David M. Stoff National Institute of Mental Health, National Institutes of Health, Bethesda, MD, USA	<i>NIMH Research Training in NeuroAIDS</i>
1:50 pm	Sarah Gheuens Postdoctoral Fellow, Beth Israel Deaconess Medical Center – Harvard Medical School, Boston, MA, USA	<i>Metabolic profile of Progressive Multifocal Leukoencephalopathy lesions in patients with and without Immune Reconstitution Inflammatory Syndrome</i>
2:05 pm	Sarah Beltrami Graduate Student, Temple University School of Medicine, Philadelphia, PA, USA	<i>Neurofibromatosis type 2 tumor suppressor protein, NF2, induces proteasome-mediated degradation of JC virus T-antigen in human glial cells</i>
2:20 pm	Kimberly Williams Graduate Student, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC, USA	<i>Suppression of HIV-associated macrophage neurotoxic activity by neurotrophin receptor stimulation</i>

2:35 pm	Anna Abt Graduate Student, Drexel University College of Medicine, Philadelphia, PA, USA	<i>Effects of morphine on ferritin subunits and resulting inhibition of CXCR4-mediated neuroprotection</i>
2:50 pm - 3:10 pm	Coffee Break	
3:10 pm - 3:40 pm	Special Lecture	2012 Bill Narayan Lectureship
		Introduction by Shilpa Buch
	Ashley T. Haase University of Minnesota Medical School, Minneapolis, MN, USA	<i>How the live attenuated monkey vaccines in which we both were interested might work</i>
3:40 pm - 4:55 pm	Session X	Animal models and behavior
		Session Chairs: Rosemarie Booze and Steven Jacobson
3:40 pm	Kenneth Williams (Plenary) Boston College, Chestnut Hill, MA, USA	<i>Myeloid regulation of inflammation in SIV and HIV infection</i>
4:10 pm	Mineki Saito University of the Ryukyus, Okinawa, Japan	<i>Complete prevention of HTLV-1 infection in humanized mice by a neutralizing monoclonal antibody to envelope gp46</i>
4:25 pm	Susan Westmoreland New England Primate Research Center, Southborough, MA, USA	<i>Giant cell encephalitis in R5 SHIV-infected rhesus macaques</i>
4:40 pm	Chen Sabrina Tan Beth Israel Deaconess Medical Center, Boston, MA, USA	<i>JC virus infection in a humanized mouse model</i>
6:30 pm - 8:00 pm	Pioneer Reception <i>Gallery on Lex</i>	
8:00 pm - 11:00 pm	ISNV Pioneer in NeuroVirology Gala Dinner <i>Manhattan Ballroom</i>	

Saturday, June 2, 2012

8:00 am - 9:00 am **Continental Breakfast**

9:00 am - 10:15 am

Session XI

HIV and co-morbidity

Session Chairs: Valerie Wojna and Eugene O. Major

9:00 am

Todd T. Brown (Plenary)
The Johns Hopkins
University School of
Medicine, Baltimore, MD,
USA

HIV and co-morbidity: Is HIV bad to the bone?

9:30 am	Nazira El-Hage Virginia Commonwealth University, Richmond, VA, USA	<i>Impact of morphine on human immunodeficiency virus type 1 and hepatitis C virus in human microglia cells is dependent on the autophagy lysosome pathway</i>
9:45 am	Arielle Kurzweil New York University School of Medicine, New York, NY, USA	<i>Recurrent meningitis in a patient with AIDS</i>
10:00 am	Susan Morgello Mount Sinai Medical Center, New York, NY, USA	<i>Hepatitis C virus is associated with arteriolar thickening in a predominantly HIV+ cohort</i>
10:15 am –10:35 am	Coffee Break	
10:35 am - 11:50 am	Session XII	Molecular neurovirology
		Session Chairs: Susan Weiss and Ravi Mahalingam
10:35 am	John Blaho (Plenary) City University of New York, New York, NY, USA	<i>Pro-apoptotic activities of the herpes simplex virus ICP0 gene</i>
11:05 am	Bassel E. Sawaya Temple University School of Medicine, Philadelphia, PA, USA	<i>HIV-1, miRNAs, and neuronal deregulation</i>
11:20 am	Amanda Brown The Johns Hopkins University School of Medicine, Baltimore, MD, USA	<i>Osteopontin motifs required for enhancement of HIV-1 replication</i>
11:35 am	Antonina Dolei University of Sassari, Sassari, Italy	<i>Uneven expression and response to stimuli of multiple sclerosis (MS)-associated retrovirus (MSRV) env and syncytin-1 by cell subpopulations in vivo and in vitro: Inference for multiple sclerosis</i>
11:50 am	Closing Remarks	

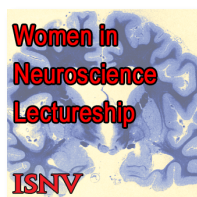
ABOUT THE PIONEER AWARD AND LECTURESHIPS



The **Pioneer in NeuroVirology Award** is presented in recognition of outstanding individual achievement in the field of neurovirology. Each International Symposium on NeuroVirology honors a worthy recipient of this award. Pioneers in NeuroVirology have been recognized by the International Society for NeuroVirology since 1999. This year, the tenth Pioneer in NeuroVirology will be recognized by the Society.



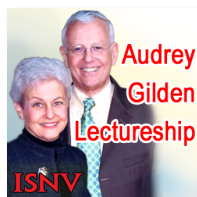
The **Neurological Infections Lectureship** features prominent investigators who study viral and non-viral pathogens that infect and damage the human peripheral and central nervous systems. Established at the 7th International Symposium on NeuroVirology held in Philadelphia, PA, USA, this will be the fifth Neurological Infections Lectureship.



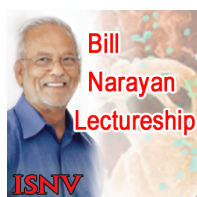
The **Women in Neuroscience Lectureship** is sponsored by the Women in NeuroVirology (WIN) Committee, which is part of the governance of the International Society for NeuroVirology. The purpose of the Lectureship is to emphasize and celebrate the major contributions of outstanding women toward the advancement of biomedical science and, in particular, neurovirology and related disciplines. Initiated in 2006 at the 7th International Symposium on NeuroVirology, this will be the fifth Women in Neuroscience Lectureship to feature a prominent woman in the field of neuroscience.



The **Paradigm Builder Lectureship** has been developed to recognize established investigators working the area of neurovirology or a related discipline for their scientific achievements. Specifically, the Lectureship has been developed to highlight the establishment of well-defined scientific frameworks within which theories, laws, generalizations, and supporting experiments are formulated and planned. Initiated in 2006 at the 7th International Symposium on NeuroVirology, this will be the fifth Paradigm Builder Lectureship to feature a leading investigator in the field of neurovirology.



The **Audrey Steinman Gilden Lectureship** recognizes investigators whose cutting-edge research achievements have made important contributions to understanding the molecular pathogenesis of neurotropic virus infection. The lectureship was established by Dr. Don Gilden, who has contributed significantly to the disciplines of neuroscience and neurovirology through his groundbreaking work on lymphocytic choriomeningitis virus, varicella zoster virus, and multiple sclerosis. A 2007 recipient of the ISNV Pioneer in NeuroVirology award, Dr. Gilden established this lectureship in honor of his wife, Audrey. This will be the first Audrey Gilden Lectureship to feature a leading investigator in the field of neurovirology.



The **Bill Narayan Lectureship** was instituted to recognize investigators who have significantly advanced the field of neurovirology through research involving animal models of viral neuropathogenesis. Established in 2009 at the 9th International Symposium on NeuroVirology held in Miami, FL, USA, the Lectureship is dedicated to the outstanding scientific contributions of Dr. Opendra "Bill" Narayan. Dr. Narayan studied the pathogenesis of lentiviruses before the emergence of HIV, and his studies predicted the neuropathogenesis of HIV, the inability of antibodies to control lentiviruses, antigenic variation within the infected host, and the difficulty in protecting the host with vaccine strategies. Following the identification of HIV as the cause of AIDS, Dr. Narayan made major scientific contributions through his studies of neuropathogenesis, immunopathogenesis, and vaccine development in the SIV-infected macaque model. This year marks the third Bill Narayan Lectureship.

ABOUT THE SPONSORS



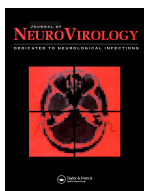
The 2012 Conference is supported by a Public Health Service grant titled “Conference on HIV and the Nervous System” (1R13MH092200-01, Janice Clements, Ph.D., Principal Investigator). This grant is funded by the **National Institute of Mental Health (NIMH)** and **National Institute of Neurological Disorders and Stroke (NINDS)** at the **National Institutes of Health** (Bethesda, MD, USA).



Financial support for the 11th International Symposium on NeuroVirology and the 2012 Conference on HIV in the Nervous System was generously provided by **Pfizer, Inc.** (www.pfizer.com) through a medical education grant.



Travel awards for investigators presenting research related to the intersection of substance use and HIV in the CNS were provided by the **AIDS Research Program, National Institute on Drug Abuse (NIDA)**, part of the **National Institutes of Health** (Bethesda, MD, USA). The role of the NIDA AIDS Research Program (www.drugabuse.gov/AIDS) is to support the development, planning, and coordination of HIV/AIDS priority research within NIDA's intramural and extramural programs, in order to ensure an integrated vision and strategy to guide HIV/AIDS research throughout NIDA. The overall mission of NIDA is to lead the nation in bringing the power of science to bear on drug abuse and addiction.



The **Journal of NeuroVirology** (www.jneurovirol.com) is the official journal of the ISNV. This bi-monthly journal provides a unique platform for the publication of high-quality basic science and clinical studies on the molecular biology and pathogenesis of viral infections of the nervous system, and for reporting on the development of novel therapeutic strategies using neurotropic viral vectors. The Journal also emphasizes publication of non-viral infections that affect the central nervous system. The Journal publishes original research articles, reviews, case reports, coverage of various scientific meetings, along with supplements and special issues on selected subjects.



The **Department of Microbiology and Immunology** (www.drexelmed.edu/microimmuno) in the **Drexel University College of Medicine** (Philadelphia, PA, USA) is involved on an annual basis in the education of more than 265 medical students, 60 graduate students, and more than 20 post-graduate scientists in training. Utilizing basic, translational, and clinical research strategies and cutting edge technologies, the faculty (totaling more than 90) are actively engaged in research and education in the areas of virology, malarial, bacterial, and fungal pathogenesis; emerging infectious disease and biodefense; opportunistic infections; drug discovery and development; immunology and vaccine science; molecular and human genetics; biomarkers and diagnostics; neuro-infectious disease; and cancer biology.



The **Institute for Molecular Medicine and Infectious Disease** (www.drexelmed.edu/immid) in the **Drexel University College of Medicine** (Philadelphia, PA, USA) is a collaborative inter-campus enterprise focused on research, diagnosis, treatment, prevention, and clinical management of infectious, inflammatory, oncogenic, metabolic and genetic disorders. The Institute facilitates the development and expansion of 14 Research Centers of Excellence (RCEs) and the training and development of graduate students, postdoctoral fellows, residents, and junior faculty within an organized framework to guide the development of inter-campus, inter-college, and inter-unit research initiatives across the University as well as with other academic, industrial, and governmental organizations at the regional, national, and international levels.



The **Office of the Vice Dean for Research** in the **Drexel University College of Medicine** (Philadelphia, PA, USA) serves to support clinical and basic research activities, works with departments and interdisciplinary programs to develop and implement research, facilitates translational research, and promotes mentoring to advance the training of physicians and scientists.



The **Department of Neuroscience** in the **Temple University School of Medicine** (Philadelphia, PA, USA) is a state-of-the-art multidisciplinary research and education entity. Our mission is to foster a collaborative environment that enables superior research leading to an understanding of the mechanisms of disorders of the central nervous system. This leads to novel therapeutic strategies directed against relevant diseases. The variety and intensity of approaches provide an integrative graduate and postgraduate program that trains first-rate scientists in the field of neuroscience who will successfully contribute new and innovative ideas and technologies well into the future.



Financial support was provided in part by the **Laboratory of Molecular Medicine and Neuroscience (LMMN)** for the Investigators in Training Award. The LMMN is in the **Division of Intramural Research**, in the **National Institute of Neurological Disorders and Stroke (NINDS)** at the **National Institutes of Health** (Bethesda, MD, USA). The mission of the NINDS (www.ninds.nih.gov) is to reduce the burden of neurological disease - a burden borne by every age group, by every segment of society, and by people all over the world.



Located in Camden, NJ, USA, the **Cooper Medical School of Rowan University** (www.rowan.edu/CooperMed) is committed to providing humanistic education in the art and science of medicine within a scientific and scholarly community in which inclusivity, excellence in patient-care, innovative teaching, research, and service to our community are valued. In June 2009, Rowan University and Cooper Health System partnered to create what was to become the first new medical school in New Jersey in more than 30 years. It will enroll its first class in fall 2012.



Gilead Sciences (www.gilead.com) is a biopharmaceutical company that discovers, develops, and commercializes innovative therapeutics in areas of unmet medical need. Gilead's mission is to advance the care of patients suffering from life-threatening diseases worldwide. Headquartered in Foster City, California, Gilead has operations in North America, Europe, and Asia Pacific.



The Symposium and Conference were generously supported by an educational grant from **Janssen Pharmaceuticals, Inc.** (www.janssenpharmaceuticalsinc.com), administered by Janssen Scientific Affairs, LLC. Headquartered in Titusville, New Jersey, Janssen Pharmaceuticals provides medicines for an array of health concerns in several therapeutic areas, including: attention deficit hyperactivity disorder (ADHD), general medicine (acid reflux disease, infectious diseases), mental health (bipolar I disorder, schizophrenia), neurologics (Alzheimer's disease, epilepsy, migraine prevention and treatment), pain management, and women's health.



Since 1968, the **Temple University College of Engineering** (www.temple.edu/engineering/) has been providing students with a first-rate engineering education. Within its four departments, the college offers six undergraduate and six graduate programs, including a doctoral degree. Graduate-level instruction and research are guided by a talented faculty who are on the cutting-edge of research in critical areas including targeted drug delivery, regenerative medicine, environmental biotechnology, scour countermeasures for bridges, tactile imaging sensors and solar cell materials. The College of Engineering offers its students numerous opportunities for academic, professional and personal development through several student professional organizations, an optional undergraduate co-op program, research experiences, and many seminars and guest lectures. Furthermore, the college is located on Temple University's main campus, in Philadelphia, Pennsylvania – a thriving city at the forefront of science and technology.



Biogen Idec (www.biogenidec.com) is among the world's leading global biotechnology companies. They are a Fortune 500 company with over \$4 billion in revenue. Patients in more than 90 countries benefit from their products, which include Tysabri and Avonex for the treatment of multiple sclerosis, and Rituxan for non-Hodgkins lymphoma.

Financial support for the Symposium and Conference was generously provided by **Dr. John Jenkins** (United Kingdom).



The **T. and L. de Beaumont Bonelli Foundation for Cancer Research** was officially recognized by Italian Presidential Decree No. 36 on January 3, 1978. The aim of the Foundation is to promote scientific research pertaining to cancer. The Foundation was instituted thanks to the generous donation of the late Teresa Berger, who left a large part of her fortune to the Foundation, whereas her late husband, Earl Luigi de Beaumont Bonelli, left most of his fortune to the Nobel Foundation.



National
Multiple Sclerosis
Society

The mission of the **National Multiple Sclerosis Society** (www.nmss.org) is to mobilize people and resources to drive research for a cure and to address the challenges of everyone affected by multiple sclerosis (MS).



The **Sbarro Health Research Organization, Inc.** (www.shro.org/SHRO/) is a nonprofit charity committed to funding excellence in basic genetic research to cure and diagnose cancer, cardiovascular diseases, diabetes, and other chronic illnesses, and to foster the training of young doctors in a spirit of professionalism and humanism. The Organization is based in Philadelphia, Pennsylvania, on the campus of Temple University.
