# International Society for NeuroVirology

September 2004

Editorial Board: Walter Atwood, Ph.D., Fred Krebs, Ph.D. Steven Jacobson, Ph.D., Ehud Lavi, M.D.

Antonina Dolei, Ph.D. • Sassari, Italy

## Welcome to the HIV Neuroprotection Workshop and 6th International Symposium on NeuroVirology

Pasquale Ferrante, M.D. • Milan, Italy

On behalf of the myself and the Workshop co-chairs, Drs. Joseph Berger and Roger Pomerantz, greetings from Sardinia, Italy, where the HIV Neuroprotection Workshop will be held on September 10th and 11th, 2004, at the Hotel Calabona. Preceding the 6th



International Symposium on NeuroVirology, this workshop will provide a valuable opportunity for researchers and clinicians to exchange information and ideas about all aspects of disease caused by HIV infection of the nervous system.

This year's workshop will consist of six interrelated scientific sessions featuring 22 speakers from around the world. Scientific sessions will focus on (i) molecular, cellular, and clinical aspects of HIV neuropathogenesis, (ii) viral and cellular proteins involved in signal transduction and neuro-

protection, (iii) neuroimmune aspects of HIV and SIV infection, (iv) neurotoxic viral proteins and intercellular communication, and (v) neuroimaging and developing therapeutics. The final session of the first day of the Workshop will feature pre-

sentations of leading edge research by five Investigators in Training in the field of HIV-associated nervous system disease. In addition, the Workshop will include a special AIDS International Roundtable, which will provide a unique opportunity for distinguished panelists and Workshop attendees to freely discuss global issues relevant to HIV neuropathogenesis.



Welcome to the 6th International Symposium on NeuroVirology, to be held on September 11th through the 14th against the very picturesque backdrop of the town of Alghero in Sardinia, Italy. This year's symposium will

again convene immediately

following a two day workshop focused on the pathogenesis and treatment of HIV-associated nervous system disease.

Keeping the tradition of past symposia, this year's meeting will be an exciting venue in which basic and clinical investigators from around the globe will present and discuss cutting edge research in the many fields of neurovirology. During eleven plenary sessions, 46 speakers will present investigations related to emerging infections and biodefense, virus-host interactions, prions and transmis-

> sible encephalopathies, viral neuropathogenesis, demyelinating disorders, viruses associated with CNS diseases, and state-of-the-art technologies relevant to neurovirology. This year, the Symposium will again provide a forum in which

Investigators in Training will present neurovirology-related studies that have become integral parts of their developing careers. In addition, the 2004 Symposium will include a special Multiple Sclerosis Roundtable session and two poster sessions that will feature many detailed poster presentations of current research. Finally, no symposium would be complete without the Reception



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### Diane Griffin is Elected to the National Academy of Sciences

Richard T. Johnson, M.D. • Baltimore, MD

Diane Griffin, MD, Ph.D., Professor and Chair of Molecular Microbiology and Immunology and Director of the Johns Hopkins Malaria Institute at the Johns Hopkins University Bloomberg School of Public Health, was elected in April to the National Academy of Sciences. Diane is a charter member of the International Society for NeuroVirology and a member of the Editorial Board of the Journal of NeuroVirology.

Diane is a Midwesterner - born in Iowa, graduated from high school in Oklahoma, and earned her college degree from Augustana College in Illinois. She received her M.D. and Ph.D. (Immunology) degrees from Stanford University. After two years of training in Internal Medicine at Stanford University Hospitals, she came to my laboratory as a post-doctoral fellow in 1970, joining Bill Narayan, Henry McFarland, and Howard Lipton as the first cohort of postdoctoral fellows in the new neurovirology laboratory in the Department of Neurology at Johns Hopkins School of Medicine. In 1973, she joined the faculty as an Assistant Professor of Neurology and Medicine and as an Investigator of the



Howard Hughes Medical Institute. She rose to Professor of Neurology and Medicine in 1986 and, in 1994, she moved across the street to assume the Chair of the Department of Molecular Microbiology and Immunology in the Bloomberg School of Public Health.

Over the past decade, her Department has flourished with exciting investigations in virology, immunology, and parasitology. The investigations and teaching in the Department span a spectrum of biology from viral genetics to field studies of arthropod vectors and human disease in the developing world.

Since her postdoctoral years, Diane's personal investigations have focused on arbovirus encephalitis and measles infections. Her studies of the immune responses to experimental viral infections, the molecular basis of neurovirulence, and the role of apoptosis and viral persistence in neurons are landmark investigations. In Zambia, she and her colleagues are examining the effect of HIV infection on measles virus immunization. They have found that measles suppresses HIV replication, and are now investigating the mechanism of suppression. A new vaccine for measles is under development using a rhesus macaque model for measles immunization. The vaccine, which would be an important tool in the eradication of measles in developing countries, would aim to induce immunity in infants under the age of 6 months.

Diane is the principal investigator on a variety of grants from the National Institutes of Health, the Bill & Melinda Gates Foundation, and the Dana Foundation. She is past president of the American Society for Virology and current president of the Association of Medical School Microbiology Chairs.

Diane is not only a dominant leader in her field and a highly effective department director; she is also a generous colleague. When I retired as Chair of Neurology at Johns Hopkins in 1997, she offered me an office and Adjunct appointment in her new department. When I followed her across the street to the Bloomberg School of Public Health, many were incredulous - "You have moved into a department chaired by your former postdoc?" Answer: "Yes and happily. Be good to your postdocs and they will take care of you in your old age."

Congratulations from the ISNV to Diane on her election, and congratulations to my student, colleague, friend, and Chair.

### REQUEST FOR NOMINATIONS

2005 PIONEER IN NEUROVIROLOGY AWARD

Awardee to be announced at the 7th International Symposium on NeuroVirology to be held in Philadelphia, PA, USA, September 2005.

Nominations should be forwarded to:

Peter G. E. Kennedy, M.D., Ph.D.

President, International Society for NeuroVirology
University of Glasgow Institute of Neurological Science

Southern General Hospital
Glasgow, Scotland G51 4TF, UNITED KINGDOM

For additional information and/or questions, contact Dr. Kennedy at Tel: 44-141-201-2474

Fax: 44-141-201-2993 • E-mail: P.G.Kennedy@clinmed.gla.ac.uk

# ISNV Highlight - Benjamin B. Gelman, M.D., Ph.D. at the University of Texas, Medical Branch, Galveston, Texas

Ehud Lavi, M.D. • Philadelphia, PA

Benjamin B. Gelman, M.D., Ph.D. is a great example of how morphologic studies can make important contributions to the field of neurovirology. Those of you who saw the cover and article by Dr. Gelman in the April 2004 issue of the Journal of NeuroVirology will appreciate the emerging role of ubiquitin in the pathogenesis of neurodegenerative diseases including HIV encephalitis and AIDS-associated dementia. Dr. Gelman is systematically analyzing brain tissues from HIV-infected individuals and studying molecular and cellular events that occur in diseased tissue. In this way, Dr. Gelman brings to light the changes that are truly relevant to the mechanism of disease in the human brain, as opposed to things that may look exciting but only happen in the tissue culture environment.

Dr. Gelman received his undergraduate education from Ohio University in Athens, Ohio, and his M.D. and Ph.D. degrees from the University of Cincinnati in Cincinnati, Ohio. He went on to train in anatomic pathology and neuropathology at the University of North Carolina at Chapel Hill, North Carolina, and stayed on staff as an instructor and then as a research assistant professor. In 1988, Dr. Gelman moved to the University of Texas in Galveston, his current location, and rose through the ranks to become professor of pathology in the departments of Pathology and Anatomy and Neuroscience. His research focuses on studies of the neuropathology of HIV and AIDS. He is extensively funded by the NIH, and serves on important study sections and NIH advisory committees.

Dr. Gelman in his own words: "The thing that I am most pleased with is that our group transformed excellent pathology practice into the scientific foundation for the mulitdisciplinary study of human brain function. I give a lot of credit to the visionary people in government and academia who realized that establishing HIV brain banks was a critical step forward in the clinical neuroAIDS field. When we got involved in the neuroAIDS scene, neuropathological principles for



brain lentivirus infection were nicely characterized by very fine researchers. I guess most people had never even heard of us; we sort of blew in like a 'West Texas Gulleywasher.' The participation by Texans in the HIV brain banking network was a very unusual and exciting opportunity to try to make human pathology a driving force behind the research agenda for neuroAIDS. With the changing picture of HIV since the advent of HAART, new concepts based on new pathological principles are being introduced as a result of these changes.

Another satisfying thing about our work is that we have had new collaborations with some of the very best behavioral neuroscientists and neurovirologists in the world. Historically, behaviorists and pathologists have not had very close interactions on the clinical scene; the NNTC helped to change that by boosting the role of neuropathology in the neuroAIDS field." Recent publications by Dr. Gelman include:

Gelman, B.B. and K. Schuenke. 2004. Brain aging in acquired immunodeficiency syndrome: increased ubiquitin-protein conjugate is correlated with decreased synaptic protein but not amyloid plaque accumulation. J Neurovirol 10(2):98-108.

Diaz-Arrastia, R., Gong, Y., Kelly, C.J., and B.B. Gelman. 2004. Host genetic polymorphisms in human immunodeficiency virus-related neurologic disease. J Neurovirol 10 Suppl 1:67-73.

## ISNV Highlight - Dr. Walter Royal, III, at the Morehouse School of Medicine

Walter Atwood, Ph.D. • Providence, RI



Dr. Walter Royal, III, received his undergraduate training in biochemistry at Harvard College in Cambridge, Massachusetts. He then completed his medical degree at Dartmouth Medical School in Hanover, New Hampshire. Following medical school, Dr. Royal did a residency in internal medicine at Faulkner Hospital in Boston. He then did a post-doctoral fellowship in neurovirology and, subsequently, a residency in neurology at The Johns Hopkins University. It was during these years that Dr. Royal became interested in understanding and treating the neurological manifestations of HIV infection. He contributed several important early papers to the field, including a widely read two-part review on HIV-associated neurological disorders published in the Journal of Critical Illness. In the early 1990's, Dr. Royal became interested in the relationship between drug abuse and HIV dementia. Since then, Dr. Royal has published several seminal papers relating drug abuse to poor neurological outcomes in HIV demented patients. In

2000, Dr. Royal took the position of Associate Professor at the Morehouse School of Medicine, where he is also the Director of the HIV/AIDS Component in the Research Center for the Study of Disparities in Health. Dr. Royal has several currently active grants, including one from the National Institute of Drug Abuse, to study the immunomodulatory effects of retinoids in HIV infection and interactions with substances of abuse. Dr. Royal is a founding member of the International Society of NeuroVirology, and he serves on several boards and professional advisory committees. Recent papers published by Dr. Royal include:

Mou, L., Lankford-Turner, P., Leander, M.V., Bissonnette, R.P., Donohoe, R.M., and W. Royal III. 2004. RXR-induced TNF-alpha suppression is reversed by morphine in phytohemagglutanin-activated U937 cells. J Neuroimmunol 147:99-105.

Khalsa, J.H. and W. Royal III. 2004. Do drugs of abuse impact on HIV disease? J Neuroimmunol 147:6-8.

# 2nd International Symposium on Polyomaviruses and Human Diseases Held in Sapporo, Japan

Richard Frisque, Ph.D. • University Park, PA

Continuing a tradition established at a Chicago workshop in 2001, clinical and basic researchers met this summer in Sapporo, Japan, to share discoveries, to initiate new or enhance current collaborations, and to discuss future directions for the human polyomavirus field. The Second International Conference on Polyomaviruses and Human Disease: Basic and Clinical Perspectives was held June 11-13 at the Sapporo Convention Center, and was organized jointly with the 4th International Symposium for Zoonosis Control and the 93rd Annual Meeting of the Japanese Society of Pathology. The organizers, Drs. Nagashima, Khalili, Atwood, and Sawa, brought a slate of 30 distinguished speakers to this outstanding venue to deliver presentations integrating the work conducted by researchers in the clinic and at the laboratory bench. This unique gathering discussed JCV and BKV epidemiology, molecular biology, oncogenesis, pathogenesis, and immunology, as well as clinical aspects of progressive multifocal leukoencephalopathy (PML) and polyomavirus-associated nephropathy (PVAN). PML remains a significant threat to the AIDS population while PVAN is seen as a serious emerging problem. Participants recognized that significant gaps in our understanding of the biology of these viruses must be narrowed before effective prevention and treatment strategies are realized. Progress on a number of fronts, including the identification of early and late viral protein functions, viral genome variation, cellular receptors and signal transduction pathways targeted by the polyomaviruses, viral links to human neoplasia, and host immune responses to virus infection, was reported.

The hospitality extended by the hosts of the conference, Dr. Kazuo Nagashima and his colleagues at Hokkaido University, was truly memorable. Participants were introduced to Japanese culture and cuisine, with the former including the famous Yosakoi Dance Festival taking place throughout the city and the latter involving lunch at a traditional sushi restaurant and a spring dinner at the renowned Sapporo Beer Garden. The conference was sponsored in part by the National Institutes of Health, the 21st Century COE Program for Zoonosis Control at Hokkaido University, the Center for Neurovirology and Cancer Biology at Temple University, and the Don Gnocchi Foundation. A proposal to hold the Third International Conference in Philadelphia, Pennsylvania was presented.

### Save the Date for the 7th International Symposium on NeuroVirology

Kamel Khalili, Ph.D. • Philadelphia, PA

Brian Wigdahl, Ph.D. • Philadelphia, PA



Even as the Workshop and Symposium get underway in Sardinia, plans are being made for the 7th International Symposium on NeuroVirology, which will take place in Philadelphia, Pennsylvania, USA, site of the first NeuroVirology Symposium. The meeting has been tentatively scheduled for September 2005 and, like past meetings, will feature distinguished investigators working in the field of neurovirology in all parts of the world. Conference chairs, the ISNV President, and the Board of Directors will soon assemble the Organizing Committee and start planning the Scientific Program. Suggestions for specific topics to be covered during plenary sessions or special workshops should be forwarded to isnv@jneurovirol.com.

### Workshop (continued from page 1)

We are very excited about this year's Workshop and the prospects of productive scientific dialogs among so many researchers working on current problems related to HIV-associated nervous system disease. We trust that your time in Sardina will be both enjoyable and scientifically enriching.

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#### **Symposium** (continued from page 1)

and Gala Dinner, which will culminate in the presentation of the 2004 Pioneer in NeuroVirology Award to an individual who will join a growing list of distinguished investigators in the field of neurovirology.

As we gather this year in Sardinia, we are again afforded the invaluable opportunity to participate in face-to-face discussions of the scientific, clinical, and social problems and solutions relevant to the neurovirology of numerous viral pathogens. In the spirit of scientific collaboration and international friendship, welcome to Sardinia!