International Society for NeuroVirology

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Editors: Eugene O. Major, Ph.D., Steven Jacobson, Ph.D.

The 4th International Symposium on

NeuroVirology will be held on June 19–22,

2002, in Düsseldorf, Germany, in conjunction

with the 10th Conference on Neuroscience of HIV Infection. All meeting activities, including

the welcoming reception, scientific sessions,

and the symposium banquet will be held at the

Rheinterrasse conference center on the banks

of the Rhein River. This symposium series has

been established to promote the complementary

4th International Symposium on NeuroVirology TO BE HELD IN CONJUNCTION WITH THE 10TH CONFERENCE ON NEUROSCIENCE OF HIV INFECTION Gabriele Arendt, M.D., Meeting Co-Chair • Düsseldorf, Germany



Drs. Gabriele Arendt, Volker ter Meulen, and Thomas Weber will serve as co-chairs of the conjoint symposium.

disciplines of virology and neuroscience as well as the fields of basic/clinical neurology and neuropathology relevant to the pathogenesis of virus-induced neurologic disorders. The goals of this joint meeting are to outline the synergies between basic and clinical science, set new courses in neurovirological research, encourage young scientists to support and sustain research in neurovirology, summarize state of the art advances in therapeutics and immunizing procedures, and discuss the problems created by prion diseases.

The meeting will include oral presentations and poster sessions in a number of exciting areas, including antiretroviral therapy, cell activation and differentiation, cellular trafficking, CSF virology and blood-brain barrier, cytokine and chemokine biology, diagnostic imaging, emerging viral infections, epidemiology, glial cell dysfunction and demyelination, HIV disease and clinical investigation, microarray technology and cellular function, neuronal dysfunction, signal transduction and apoptosis, neuropsychology, prion disease, vaccine development, viral adaptation and evolution, viral infections and autoimmune disease, viral latency and reactivation, viral neuropathogenesis, viral pathogenesis and animal models, viral vectors, stem cell technology and gene therapy, and viral-induced tumors. The meeting will also feature the presentation of the third Pioneer of NeuroVirology Award and the accompanying overview lecture.

Abstracts for poster sessions will be accepted from students, postdoctoral fellows, new investigators, and established scientists in the field. A number of abstracts will also be selected for oral presentation. The tentative deadline for abstract submission and early registration is January 15th, 2002. Abstracts as well as meeting proceedings will be published in the Journal of NeuroVirology.

This joint meeting promises to be a highly productive forum for the presentation of cutting-edge neurovirology research conducted by investigators around the world. For the latest information regarding registration, abstract submission, and lodging, contact the ISNV Administrative Office or visit the Düsseldorf 2002 pages on the ISNV website (http://www.isnv.org/dusseldorf2002). A meeting information packet, which will include registration forms and hotel information, will be mailed to all members in Fall 2001.

Please mark your calendars and plan to join us at the 4th International Symposium on NeuroVirology and the 10th Conference on the Neuroscience of HIV Infection. All attendees will receive special reduced accommodation rates at the Rheinterrasse. ISNV members can also take advantage of special meeting registration rates.

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ISSUE

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- JNV Update
- Gibbs Memorial
- NeuroAIDS (20yrs.)
- Chicago (PML Meeting)
- Fields Virology
- NINDS/NIMH Funds Trainees
- 2000 Pioneer Award

NINDS & NIMH Fund Investigators-In-Training Grants to attend 3rd ISNV Symposium

Brian Wigdahl, Ph.D. • Hershey, PA, USA

The National Institute of Neurological Disorders and Stroke and the National Institute of Mental Health provided support to the organizing committee of the 3rd International Symposium on NeuroVirology held in September of 2000 in San Francisco.

Based on the quality of submitted abstracts and verification of training status, the International Organizing Committee was able to provide partial support for ten trainees to attend the Symposium and present their research in the special Investigators-in-Training Session and in the poster session workshops. The investigators who received the awards were Aarthi Ashok (Brown University), *See NINDS on page 4*

Journal of NeuroVirology: An Update

Ruth Briggs • Philadelphia, PA



The Journal of NeuroVirology 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 reporting the development of novel therapeutic strategies using conventional and unique neurotropic viral vectors. Additionally, the Journal devotes special issues on emerging infectious diseases and mechanisms of virus-induced neurodegeneration of the nervous systems.

Beginning with Volume 7, the Journal of NeuroVirology changed publishers to Taylor & Francis, a publisher with extensive experience with society affiliated publications. As we transitioned to our new publisher, the editorial staff was reminded that adjustments are required with change and the resulting "growing pains" require attention and correction. We are grateful for your patience and understanding during this process as we strive for perfection in JNV. Having passed this transitional phase, we are excited about future issues of JNV, featuring the August issue, (7)4, which is devoted to AIDS/Progressive Multifocal Leukoencephalopathy, from basic science to clinical and therapeutic applications. With Drs. David Clifford and Eugene Major as Guest Editors, this special issue will present the latest research and therapeutics for AIDS/PML. This issue is in press and scheduled for shipping in September.

The Editorial Board and Staff are planning several special issues and supplements for Volume 8, including an issue on neural immunity, polyomavirus and human disease, and a special issue for the 4th International Symposium of NeuroVirology in 2002. As the newest member of the JNV Editorial Staff, I am committed to providing the highest quality of service to the ISNV community.

In memory of Dr. Clarence Joseph Gibbs, 1924-2001

E. O. Major, Ph.D. • Bethesda, MD



On February 16, 2001, Dr. Clarence Joseph 'Joe' Gibbs, Ph.D. passed away after a long struggle with heart disease and pulmonary problems. Dr. Gibbs was

a pioneer investigator in the area of infections of the human nervous system and also shared in the work which led to the discovery of the infectious nature of what was then described as simply 'spongiform encephalopathies'. Joe Gibbs' papers on the transmissible nature of the spongiform encephalopathies or TSE and other topics number over one thousand. His early work on Kuru and Creutzfeldt-Jakob disease and the transmission of an agent in animal models are referenced to this day as classic descriptions of investigative science and paved the way for recognition of this field by the Nobel Prize committee.

Along with Carlton Gajdusek, M.D., Joe worked for almost 40 years on this topic which occupied nearly his entire career as a scientist, all of which was in federal service of more than 50 years. A native of Washington, D.C., Joe began his career in the Commissioned Corps at Walter Reed Hospital before moving to the National Institute of Neurological Disorders and Stroke in 1962 where he built the Laboratory of Central Nervous System Studies with Gajdusek. Dr. Gibbs not only imparted his knowledge of this field for his colleagues' benefit but also worked tirelessly with hundreds of students who came to the NINDS looking for guidance in science and inspiration in its progress. Joe provided both, generously and in great volumes. He will be remembered at times as a crusty individual with direct opinions on many subjects and equally as well as a dedicated scientist with an enormous humanitarian sense of his obligation to make the world better, and in so doing, to challenge his colleagues to do the same. The NINDS held a memorial service for Dr. Gibbs on July 24 on the NIH campus. The NIH Acting Director as well as many of Dr. Gibbs' colleagues spoke of his lifelong accomplishments.

20 yrs. of AIDS & the Neurologic AIDS Research Consortium

David Clifford, M.D. • St. Louis, MO

The twentieth anniversary of identification of AIDS has directed interest to the remarkable medical history that has been generated by this condition. Modern medical science has identified the molecular anatomy and physiology of the human immunodeficiency virus (HIV) in considerable detail and developed effective but imperfect treatments that have resulted in significant improvements in the prognosis for AIDS patients. A prominent aspect of HIV infection is the very significant burden of associated neurological diseases. HIV has a plethora of neurological complications, which have spurred the development of a specialty area in neurology and a dedicated national clinical trial consortium supported by the National Institute of Neurologic Diseases and Stroke (NINDS), the Neurologic AIDS Research Consortium (NARC).

The neurologic impact of HIV was first reported by Bill Snider and colleagues in 1983 at Cornell in a landmark report outlining both the direct and indirect neurologic complications being seen in AIDS patients. Later, when HIV was identified, it was soon apparent that the virus entered the brain early and often in the infection, resulting in a characteristic encephalopathy termed AIDS dementia complex by **Richard Price and colleagues. Since** that time, a common distal painful neuropathy, as well as a variety of other peripheral neuropathic presentations, and a myelopathy have been associated with the virus. In addition, a subset of previously uncommon neurologic complications began to be seen commonly as a result of prolonged immunodeficiency. Included in this different spectrum

disease of neurological are cryptococcal meningitis, toxoplasma encephalitis, cytomegalovirus encephalitis and radiculomyelitis, progressive multifocal leukoencephalopathy, more aggressive neurosyphilis, and primary central nervous system lymphoma. The burden of these conditions, many of which are difficult to treat, as well as the burden of the primary neurologic complications of the virus represent a very substantial part of the clinical impact of HIV, and result in many deaths.

While recognition of the neurological impact of the infection developed rapidly after 1983, effectively recruiting interested neurologists to study it has taken longer. AIDS leadership was heavily involved in the acute medical issues of the infection, and the neurologic problems tended to receive suboptimal attention and support. Within the AIDS Clinical Trials Group (ACTG), Dr. Richard Price led important groundbreaking work demonstrating that zidovudine actually had benefit for the AIDS dementia complex. However, the race to develop better therapy, and lack of organized support for neurology efforts made it very difficult to develop neurologic trials. A combination of effective community constituent lobbying and the interest of neurologists working in the ACTG system led to creation of the Neurologic AIDS Research Consortium led by Dr. David Clifford Washington at University in St. Louis supported by NINDS. Since 1993, this group has performed trials addressing HIV associated motor-cognitive disease, painful peripheral neuropathy, and progressive multifocal leukoen-

cephalopathy. Accomplishments include studies of an antioxidant effective TNF-alpha antagonist for cognitive motor disease, of recombinant nerve growth factor for painful neuropathy and cytosine arabinoside and cidofovir for PML. Current projects of this group include collaborative studies with ACTG assessing the longitudinal impact of HIV therapy on neurocognitive performance and neuropathy and a longitudinal cerebrospinal fluid study (ACTG736) seeking to understand the dynamics of viral trafficking as impacted by therapy. Trials that should open in the next few months include a controlled trial of transcutaneous selegiline for HIV associated motor cognitive disease (A5090) and a pathophysiologic study of the development of painful neuropathy utilizing quantitative techniques (A5117). More information about this study group may be accessed through their website at www.neuro.wustl.edu/narc.

Much progress has been made in understanding the interaction of HIV with the nervous system. However, the complexity of studying the nervous system has made this work much more difficult than *See AIDS on page 4*

The "Featured Brief" section of the newsletter highlights an area of international importance that the editors feel deserves special attention. An update of current activity and information on a "featured" topic should help keep members aware of fast paced studies and new results. The Editors are always interested in your ideas for future articles and brief comments on its topics.

From AIDS on page 3

study of HIV in most of the body. Meanwhile, the blood brain barrier makes application of treatments for the central nervous system significantly more difficult. For these reasons, many scientists interested in HIV are increasing their efforts to monitor the impact of HIV on the brain recognizing that this will likely be one of the most challenging areas in the battle with this fascinating virus. It is clear that ongoing leadership is necessary for understanding the biology of HIV infection in the nervous system and for effectively controlling or eliminating it. This will be a rich field of study in the coming years.

Clinical and Basic Scientists meet in Chicago on PML

E. O. Major, Ph.D. • Bethesda, MD



Recognizing the rapid accumulation of data and in depth understanding of JC Virus pathogenesis leading to the demyelinating disease, Progressive Multifocal Leukoencephalopathy (PML), basic and clinical scientists met for a two day workshop in Chicago in February to exchange information, share ideas, and plan future studies. The meeting was held just prior to the 8th International Conference on Human Retroviruses and Opportunistic Infections. A group of 45 investigators from Asia, Europe and the United States discussed the molecular aspects of JCV biology and new therapeutic avenues for treatment of PML patients which continues to be a significant neurological

complication in AIDS patients and in other individuals with severe immune compromised status such as allograft recipients and cancer patients. PML has been difficult to treat because of the multifocal nature of the lesions in the brain which makes targeted delivery of drugs effective against JCV replication very difficult. The Workshop on the Biology of JCV and PML was the first time that such a conference was held in this field and the first time that neurologists, infectious disease experts, virologists, and molecular biologists met for the sole purpose of up-dating each other on the major issues and challenges of understanding the process of a viral induced demyelinating disease in humans. Research reports from this unique meeting will be presented in a special issue of the Journal of NeuroVirology with details of current knowledge on the biology of JCV and progress in conducting clinical trials for PML. The meeting was sponsored in part by the Neurologic AIDS Research Consortium (NARC) and the National Institute of Neurological Disorders and Stroke.

Fields Virology, 4th Edition

David Knipe, Ph.D. • Boston, MA



The fourth edition of Fields Virology is scheduled to be published by Lippincott, Williams and Wilkins in June, 2001. This book was originated by Bernie Fields, one of the pioneers in neurovirology, and he served as editor in chief for

the first 3 editions. The third edition was published just after his death in 1996. In the fourth edition, we have retained the general organization of the first three editions with Part 1 containing chapters on general aspects of virology and Part 2 containing chapters on replication and medical aspects of specific virus families and specific viruses of medical importance. In Part 1 we have added new chapters on principles of virology, virus entry and uncoating, replication strategies of RNA viruses and DNA viruses, virus assembly, and virus vectors to enhance the utility of this book as well as that of Fundamental Virology as a textbook. In Part 2 we have added new chapters on the arteriviruses, the Bornaviridae and Kaposi's sarcomaassociated herpes virus, and we have expanded the retrovirus section to include chapters on the non-human lentiviruses as well as other human and primate retroviruses. Perhaps most importantly, each copy will include a CD-ROM containing the entire text and color versions of some of the figures. I am personally looking forward to using the CD-ROM for making slides from the digital images. Fundamental Virology, which contains selected basic chapters and is intended as a textbook for graduate students and as a reference for basic scientists, should be published by August and available for fall courses.

R E Q U E S T F O R N O M I N A T I O N S 2002 PIONEER IN NEUROVIROLOGY AWARD

Awardee to be announced at the **4th International Symposium on NeuroVirology** held in conjunction with the **10th Conference on Neuroscience of HIV Infection** Düsseldorf, Germany, June 19-22, 2002

Nominations should be forwarded to: Brian Wigdahl, PhD, President, International Society for NeuroVirology Department of Microbiology and Immunology (H107) Penn State College of Medicine, 500 University Drive, Hershey, PA 17033 USA

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Kristen Bernard (University of North Carolina), Marc Desforges (INRS-Institute Armand Frappier), Jennifer Gordon (Temple University), Tricia Hogan (Penn State College of Medicine), Stuart Keir (University of Glasgow), Pieter Leyssen (Rega Institute for Medical Research), Kelly Peterson (Wright State University), Marzia Puccioni-Sohler (Federal University of Rio de Janeiro), and Samantha Solden (student training at the National Institutes of Health). As a reminder, ISNV plans to provide funding to defray the costs of a number of investigators-intraining to participate in the 4th International Symposium on NeuroVirology scheduled for June 19-22, 2002 in Düsseldorf, Germany.