

# ISNV

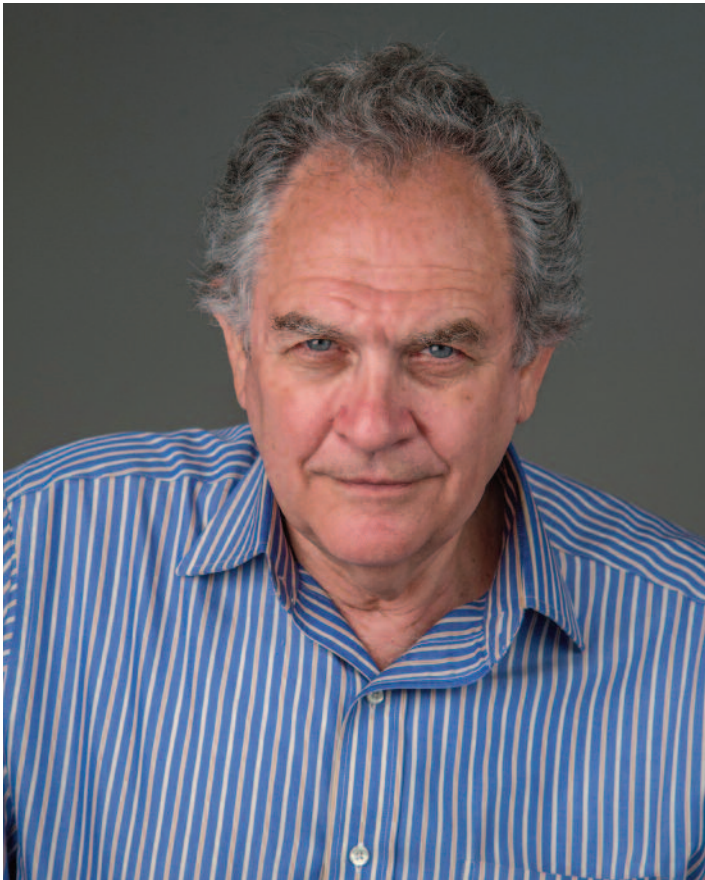
*International Society for NeuroVirology*

Editor: Dianne Langford, Ph.D.

Associate Editor: Michael Nonnemacher, Ph.D.

## 2013 Neurological Infections Lectureship Theodore Nash

Authored by Avindra Nath



The ISNV is honored to have Dr. Theodore Nash present the 2013 Neurological Infections Lectureship at the 12th International Symposium on NeuroVirology. After receiving his MD degree from the University of Miami, Dr. Nash trained in internal medicine at the Duke University Medical Center and Infectious Disease and in a combined joint program at Boston Children's and Beth Israel Hospitals in Boston. Since 1970, except for ID training and a year of research in carbohydrate chemistry at Harvard, his entire academic career has been spent at the NIH, initially as a clinical fellow in NIAID and research fellow in the Laboratory of Parasitic Diseases (LPD), and then as Principal Investigator in the LPD. As the longest serving member of four clinical parasitologists in the LPD, Dr. Nash has considerable experience in the diagnosis and treatment of most parasitic infections. His early laboratory and clinical studies focused on schistosomiasis and then Giardia. He was the first to axenize a large number of isolates, which were used to characterize and group Giardia by molecular means, the first to do so in any parasite. Later, he discovered and characterized antigenic variation in Giardia. He and co-workers developed basic molecular biological techniques, including methods for introducing, expressing, and knocking down various genes/proteins, that continue to be used to study the cellular biology of Giardia.

Dr. Nash has also contributed significantly to studies of

### BOARD OF DIRECTORS

JOSEPH BERGER, USA

ANTONINA DOLEI, ITALY

JOAN BERMAN, USA

PASQUALE FERRANTE, ITALY

RUTH BRACK-WERNER, GERMANY

JENNIFER GORDON, USA

BRUCE BREW, AUSTRALIA

IGOR GRANT, USA

SHILPA BUCH, USA

ALAN JACKSON, CANADA

JANICE E. CLEMENTS, USA

STEVEN JACOBSON, USA



PETER KENNEDY, UK

KAMEL KHALILI, USA

IGOR KORALNIK, USA

MAHENDRA KUMAR, USA

DIANNE LANGFORD, USA

AVINDRA NATH, USA

LYNN PULLIAM, USA

WALTER ROYAL, III, USA

MINEKI SAITO, JAPAN

ISRAEL STEINER, ISRAEL

DAVID VOLSKY, USA

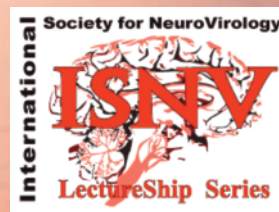
BRIAN WIGDAHL, USA

neuropathogenesis associated with parasitic brain infection. Neurocysticercosis is a brain infection of the larval stage of the tapeworm parasite, *Taenia solium*. Individuals infected with the intestinal-dwelling tapeworm excrete large numbers of infectious ova in parasite segments called proglottids or as free eggs in the feces. Ova, when ingested by free-roaming pigs or accidentally by humans, hatch, enter the intestinal wall, and are carried by the bloodstream to the host's tissues, where they develop into viable cysts found primarily in the brain, muscle, and subcutaneous tissues. In the brain, the presence of cysts usually follows cerebral vasculature, resulting in parenchymal disease and/or extraparenchymal disease in the subarachnoid spaces, ventricles, and spinal cord.

Dr. Nash's interest in neurocysticercosis developed because of early experimental clinical studies using praziquantel in the 1980's, a drug that revolutionized the treatment of schistosomiasis and was subsequently found to be the first effective antihelminthic treatment for neurocysticercosis. Since 1985, over 110 patients have been enrolled into the only clinical protocol devoted to neurocysticercosis in the United States. Over half of these patients continue to be seen at NIH, some since 1985. Along with Dr. Hugo Garcia in Peru and Dr. Siddhartha Mahanty at NIH, Dr. Nash performs clinical and laboratory studies in Peru. Most of his current efforts are devoted to better understanding and improving treatment strategies for *T. solium* neurocysticercosis. Prior to 1970, neurocysticercosis was under recognized and largely untreatable. Currently, however, neurocysticercosis is easily diagnosed and treated. Many of these advances in our understanding of and improved treatments for neurocysticercosis were made possible by Dr. Nash's significant contributions to the field. Dr. Nash continues to investigate these and other critical aspects of this disease. Specifically, he is addressing treatment of the complicated subarachnoid and ventricular disease with steroid sparing agents, understanding and devising better treatments of the detrimental host inflammatory responses caused by anti-helminthic treatment, and studying and characterizing the phenomenon of peri-lesional edema around calcifications. The ISNV congratulates Dr. Nash on his contributions toward improved treatments for neurocysticercosis and complications related to infection.

## The Neurological Infections Lectureship

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 sixth Neurological Infections Lectureship. The International Society for NeuroVirology will accept nominations for the 13th International Symposium on NeuroVirology for the Spring of 2015. Please send all inquiries and nominations to [mail@isnv.org](mailto:mail@isnv.org).



Contact the ISNV at:  
(215) 707-9788  
[mail@isnv.org](mailto:mail@isnv.org)  
[www.isnv.org](http://www.isnv.org)



@joinISNV

ISNV Newsletter printed by  
the Center for Scientific  
Communication & Outreach



DREXEL UNIVERSITY  
College of  
**Medicine**  
Institute for Molecular Medicine &  
Infectious Disease