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International Society for NeuroVirology
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Women in Neuroscience Lectureship
Janice Clements

Leslie Marshall, Ph.D., Bethesda, MD

This October in Milan, Italy at the 10th International Symposium on NeuroVirology, the Women in Neuroscience Lectureship will be presented by Janice Clements Ph.D., a world leader in lentiviral research who has dedicated significant effort to promoting women in the sciences. Dr. Clements has proven herself as an outstanding administrator who champions the causes of women and is their active voice in the field. At Johns Hopkins University she re-structured the Women's Leadership Council to actively undertake the mission of developing and mentoring women junior faculty and has been instrumental in fostering leadership skills aimed at preparing senior women faculty for leadership positions. In 2005, she organized the Women Professors Celebration at Johns Hopkins School of Medicine commemorating the promotion and celebration of women Professors, an event that was attended by celebrities such as Cokie Roberts (ABC News) and the 2005 Nobel Laureate, Dr. Linda Buck. Within the ISNV, she is an active member of the Women in Neurovirology Committee (WIN) and serves as a mentor for young female members of the ISNV.

Dr. Clements is a professor of Comparative Medicine, Neurology, and Pathology, has a joint appointment in Molecular Biology and Genetics, and spearheads a distinguished, multidisciplinary, research program that focuses on the molecular pathogenesis of lentiviruses at Johns Hopkins University. She became the Director of the Retrovirus Laboratory in 1992 and the Vice Dean for the Faculty of the School of Medicine in 2000. The main interest of her group explores the molecular basis of HIV-associated pathologies using the SIV-infected macaque model system. Pioneering work from her group has provided many of the foundational concepts that are currently utilized to explore the pathogenesis of HIV and its effects on the immune and nervous systems. She was honored at the 9th International Symposium on NeuroVirology in Miami where she presented the inaugural Bill Narayan Lectureship that is dedicated to the study of viral pathogenesis and the neurovirology of lentiviruses in the memory of another leader in the field of lentivirus

biology, Dr. Bill Narayan.

Dr. Clements was the first scientist to clone and sequence lentivirus genomes, thereby unraveling their complex genetic and molecular organization. Subsequently, a series of papers published by her elucidated the molecular basis for antigenic variation in the classic model of slow virus (visna) infection. Her groundbreaking work on the initial cloning of lentiviral genomes formed the basis for characterization of HIV, as a member of the lentivirus family. This landmark breakthrough has been critical in our understanding of lentivirus pathogenesis and its relationship with other oncogenic retroviruses. Dr. Clements' work on the molecular mechanisms of lentiviruses has provided further important insights into the pathogenesis of HIV including high susceptibility of infection and disease in macrophages in the end organs such as brain and lungs, role of antigenic variation of lentiviruses in persistence and evasion of immune control, and the inability to develop successful immunological approaches for prevention of lentiviral infections.

As an extension of her studies on lentiviruses, she initiated work on the relevant SIV/macaque model of NeuroAIDS. She successfully developed the first virus molecular clones that were both macrophage-tropic as well as neurovirulent, and proceeded to demonstrate in depth the molecular basis for SIV neuropathogenesis in vivo. Work from her laboratory identified CD4-independent entry of virus into the cells of the CNS. The neurovirulent SIV clone developed and characterized by her was critical for the progress of the "novel accelerated, consistent model" of HIV/AIDS. This model has proved a valuable tool to decipher the early effects of innate immunity in the brain. Work from her group has also shed light on a novel signaling pathway in macrophages for SIV latency. Another application of this model has been its translational approach to translate the anti-inflammatory and neuroprotective roles of the drug minocycline. These key findings formed the basis for testing minocycline in Multi-Center Clinic trials for the treatment of AIDS-associated pathologies. Using this model system, Dr. Clements has also established a latency model to study reservoirs of HIV in vivo as well as identifying a novel mechanism for the establishment of SIV/HIV latency in macrophages in the brain triggered by innate immune responses in vivo.

Dr. Clements has been a major supporter of women in science and was a founding member of the Committee on Women in NeuroVirology. We are pleased to recognize her scientific achievements through the Women in Neuroscience Lectureship.

Request for Nominations for The Women in Neuroscience Lectureship

The 11th symposium will be held in New York, New York, 2012

International Society for NeuroVirology ISNV LectureShip Series

The Women in Neurovirology (WIN) Committee of the International Society for NeuroVirology has elected to sponsor a lectureship to emphasize and celebrate the major contributions of outstanding women in the advancement of biomedical science and in particular neurovirology and related disciplines. This lectureship was initiated at the 7th International Symposium on NeuroVirology. Previous Awardees include Dr. Diane Griffin, Johns Hopkins University, Dr. Gabriele Zu Rhein, University of Madison-Wisconsin, and Dr. Lynn Pulliam, University of California, San Francisco. The International Society for NeuroVirology will accept nominations for the 11th International Symposium on NeuroVirology for the Spring of 2012. Please send all inquiries and nominations to mail@isnv.org.

Women in Neurovirology (WIN) Committee

Joan Berman (Chair)
Lynn Pulliam
Ruth Brack-Werner
Jennifer Gordon
Shilpa Buch

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