



Douglas A. Kerr MD PhD
Director and Neurologist, Johns Hopkins
Transverse Myelopathy Center
Serves on The Transverse Myelitis
Association Medical Advisory Board

Updates on TM treatment and cure research and results

Education And Training

BA 1988, magna cum laude, Princeton University, Princeton, New Jersey, Biology
MD 1995, summa cum laude, Jefferson Medical College, Thomas Jefferson University,
Philadelphia, Pennsylvania
PhD 1995, Biochemistry and Molecular Biology, College of Graduate Studies,
Thomas Jefferson University, Philadelphia, Pennsylvania
Board Certification, 2000, American Board of Psychiatry and Neurology

Professional Experience

1999 Assistant Professor, Department of Neurology, The Johns Hopkins Hospital,
Baltimore, Maryland
1999 Director, Johns Hopkins Transverse Myelopathy Center
1998-1999 Chief Resident, Department of Neurology, The Johns Hopkins Hospital,
Baltimore, Maryland
1996-1998 Resident, Department of Neurology, The Johns Hopkins Hospital, Baltimore,
Maryland
1995-1996 Resident, Department of Internal Medicine, The Graduate Hospital, Philadelphia,
Pennsylvania

Awards

Outstanding Senior Thesis Award, Biology Department, Princeton University (1988)
Sigma Xi Research Day Award Winner, Undergraduate Division (1988)
Gibbon Scholarship, Thomas Jefferson University, College of Graduate Studies (1988-95)
Elected Hobart Amory Hare Honor Medical Society (1989)
Sigma Xi Research Day Award Winner, Graduate Division (1990)
Ralph Heimer Award for Excellence in Graduate Studies (1992)
Elected Alpha Omega Alpha (1994)
William Potter Memorial Prize for highest clinical average, Jefferson Medical College (1995)
Salutatorian, Jefferson Medical College (1995)
Jay Slotkin Award for best resident research project and presentation, Department of Neurology,
Johns Hopkins Hospital (1999)

Howard Hughes Medical Institute Award for Clinical Scientist (1999)
National Institutes of Health, Mentored Scientist Award (1999)
Muscular Dystrophy Association, Research Development Award (1999-2001)
Parkinson's Disease Foundation, Research Grant (1999-2000)
Clinician Scientist Award, Johns Hopkins Hospital (1999)
Platform Presentation, Society for Neuroscience, "Neural Stem Cells in Motor Neuron Disease (2000)
Agarni Foundation Award for best Scientific talk, 2nd International Congress in Neuroscience, Terni, Italy (July 2000)

Dr. Kerr obtained his research training under Dr. Kamel Khalili examining molecular factors relating to JC virus reactivation during immunosuppression. He determined the involvement of several cellular transcription factors that regulate the transition of JC virus infection from a latent to an active lytic infection in oligodendrocytes resulting in the universally fatal disease Progressive Multifocal Leukoencephalopathy. He also determined that several chemotherapeutic agents have potent antiviral activity against HIV-1 and JC virus, a finding that has been extended and is now being evaluated at Johns Hopkins Hospital in patients with HIV-dementia. Following completion of his Ph.D., Dr. Kerr entered a rigorous clinical training program, first in internal medicine and then as a resident in the Department of Neurology at Johns Hopkins Hospital. He served as the Chief Resident, and was then appointed Assistant Professor in the Departments of Neurology and Molecular Microbiology and Immunology. It was during his residency that Dr. Kerr became interested in transverse myelitis, and initiated experiments to define mechanisms underlying neuronal death in spinal cord injury. The laboratories of Drs. Marie Hardwick and Diane Griffin have successfully investigated mechanisms of neuronal apoptosis and have revealed fascinating insights about critical modulators of neuronal death. Utilizing the expertise of these laboratories in neurovirology, neuroimmunology and neuronal apoptosis, Dr. Kerr employed the Sindbis virus model system to reveal for the first time that the Survival of Motor Neuron (SMN) protein functions in the protection of neurons from apoptotic death; and that mutant SMN protein found in patients with the neurodegenerative disorder spinal muscular atrophy (SMA) accelerates neuronal apoptosis. He has elucidated several potentially important mechanisms that govern this function. It is hoped that this knowledge will allow the development of strategies designed to protect neurons from death following an injurious event, such as transverse myelitis. He has also generated exciting data regarding the potential role for neuronal stem cells in restoration of function in spinal cord injury. By combining his expertise in neuronal death and stem cell transplantation, Dr. Kerr hopes to advance the field of transplantation into the central nervous system and to ultimately consider the use of this technology in patients with transverse myelitis.

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