Biography

Prof. Sternberg received her M.D. degree and trained in Rheumatology at McGill University, Montreal, Canada. She did post-doctoral training at Washington University, Barnes Hospital, St. Louis, MO, in the Division of Allergy and Immunology. She was subsequently a Howard Hughes Associate and Instructor in Medicine at Washington University and Barnes Hospital, before joining the National Institute of Mental Health in 1986. She is currently Chief of the Section on Neuroendocrine Immunology and Behavior, and Associate Branch Chief of the Clinical Neuroendocrinology Branch of the National Institute of Mental Health Intramural Research Program at the National Institutes of Health. Her specific research involves two areas of study:

Prof. Sternberg is internationally recognized for her ground-breaking discoveries in the area of central nervous system - immune system interactions. In recognition of her work, Prof. Sternberg has been awarded the Public Health Service’s Superior Service Award; the Arthritis Foundation William R. Felts Award for Excellence in Rheumatology Research; and the United States Department of Health and Human Services Public Health Service Staff Recognition Award, in Recognition of Special Achievement.

She is also internationally recognized as a foremost authority on the L-Tryptophan Eosinophilia Myalgia Syndrome (L-TRP-EMS), which swept the country in epidemic proportions in 1989 in persons taking the amino acid food supplement, L-tryptophan. In recognition of her expertise in this area, Prof. Sternberg has acted as advisor to several U.S. and international institutions. She was awarded the FDA Commissioner's Special Citation for her outstanding contributions in the study of the etiology of EMS, has received the Public Health Service Superior Service Award in recognition of this work, and has testified on this and related issues as an expert witness before Congress.

Lecture Abstract

31 October 2003, 6.15pm, Clinical Research Centre (CRC) Auditorium, Faculty of Medicine, MD 11, National University of Singapore, 10 Medical Drive, Singapore 117597

"Brain Immune Connections: The Brain's Stress Response in Health and Disease"

The lecture will outline scientific advances in understanding the communication between the brain and immune system: the scientific underpinning of the so-called "mind-body" interaction. The idea that the mind and negative or positive states of mind, such as psychological stress or well-being, can influence health and disease has been in the popular culture for thousands of years. Recent scientific advances prove that there are many ways in which the brain and the immune system communicate, and modify each other's functions. Interruptions of these interactions, through genetic, pharmacological or surgical means, leads to enhanced susceptibility to inflammatory diseases such as arthritis. Over-activity of the hormonal stress response, as during chronic stress, is associated with increased susceptibility to infections, prolonged wound healing and decreased vaccine take-rate. The presence of immune molecules in the brain, and their role in nerve cell death and survival, explain nerve cell death in degenerative brain diseases like dementia of Alzheimer's and AIDS. Immune molecules within the nervous system can also play a role in nerve repair and recovery from nerve trauma. On the basis of such findings, new drug treatments are currently being developed, such as the use of anti-inflammatory drugs in Alzheimer's and multiple sclerosis, immune treatments for spinal cord injury, anti-immune molecule drugs for stroke, anti-stress hormone drugs for arthritis or nerve chemical related drugs for improving immunity in aging.