

# *Martin S. Hirsch, MD*

## Recipient of the 2008 Maxwell Finland Award for Scientific Achievement

**I**n an ever-shrinking global community, Dr. Martin Stanley Hirsch is renowned for battling the insidious and deadly viruses that sweep through humanity. His results and resolve place him in the upper echelon of virology and HIV/AIDS research. Dr. Hirsch is widely recognized as a pioneer in HIV combination therapy because of his trailblazing studies of drug combinations *in vitro* and *in vivo*. From his first demonstrations that some combinations of antiretroviral drugs were synergistic whereas others were antagonistic, to the landmark clinical antiretroviral combination trials that he directed, his fearlessness and findings have revolutionized the field.

Dr. Hirsch “has been one of the most outstanding physician/scientists in the world in the arena of infectious disease,” says Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health. “He is widely recognized for his work on HIV/AIDS, particularly as part of a team in the design and conduct of clinical trials for antiretroviral drugs. These trials have led to the widespread use of therapies that have transformed in a positive way the lives of HIV-infected individuals.”

According to Dr. Joseph B. Martin, Dean of the Faculty

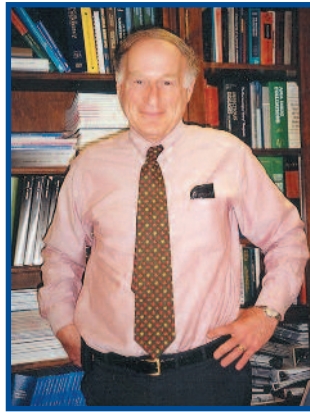
of Medicine at Harvard Medical School, “the enormous progress made in HIV/AIDS therapy over the past two decades is in no small part due to Dr. Hirsch’s groundbreaking efforts. He has made multiple seminal observations in the area of viral pathogenesis and therapy. These studies have literally spanned the field from bench to bedside and back again,

and in many cases have led to our current paradigms of understanding of how to treat viral diseases.”

Born in Cortland, New York, in 1939, Dr. Hirsch was the son of a doctor. “My father was an OB/GYN in Germany, but was forced to emigrate in 1937 because of the Nazis,” he says. In the US, his father became a primary care physician, then known as a general practitioner. His mother was a homemaker. “At an early age, I realized how much my father enjoyed practicing

medicine, and once I gave up the idea of becoming a veterinarian—after a visit to a pig farm—or a professional baseball player, that is the only profession I considered.”

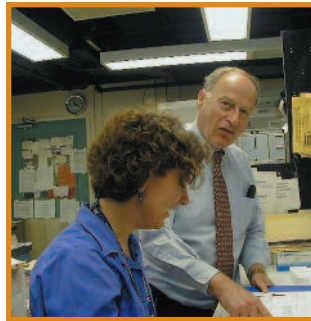
Dr. Hirsch graduated from Hamilton College in 1960 and Johns Hopkins University Medical School in 1964. At Johns Hopkins, Hirsch conducted some immunology research and was attracted to a career in investigation. One of his mentors was Dr. Lee Cluff, the Chief of Infectious Diseases. Dr. Hirsch received postdoctoral training at the



University of Chicago, the US Center for Diseases Control and Prevention in Atlanta, where he worked with Dr. Fred Murphy, and the National Institute for Medical Research in London. In 1969 he began a two-year clinical and research fellowship in infectious diseases at the Massachusetts General Hospital and Harvard Medical School. He joined the Harvard faculty in 1971. In 1988 he was named professor of medicine. He has also served as adjunct professor of immunology and infectious diseases at the Harvard School of Public Health and, from 1981 until recently, as director of the HIV/AIDS activities at the Massachusetts General Hospital.

From 1987 to 2004, he directed the Harvard AIDS Clinical Trials Unit and for the past 18 years has been the principal investigator for the NIH Harvard Multidisciplinary AIDS Training Grant. In 2005 he assumed an additional leadership position in international AIDS efforts as chair of the Clinical Oversight Committee for the President's Emergency Plan for AIDS Relief (PEPFAR) involving programs in Tanzania, Nigeria and Botswana.

For nearly 40 years, Dr. Hirsch has been at the vanguard of virology research and training. "At the time when his work began," says Dr. Raphael Dolin, who holds the Maxwell Finland Chair at Harvard Medical School, "only one or two antivirals were available for use in humans, and it was unclear as to whether genuine antiviral chemotherapy would ever be a reality. Through a combination of insightful studies of experimental models and rigorously conducted clinical studies, he established an approach which became a model for the development of antiviral chemotherapy for herpesvirus infections."



Dr. Hirsch has participated in a leadership role on many pivotal studies on antiviral drugs. In the 1970s he and Dr. Michael Oxman founded the Boston Interhospital Virus Study Group that helped usher in the current era of antiviral therapy with a landmark placebo-controlled trial of idoxuridine in herpes simplex encephalitis. The Boston study group eventually joined forces with the NIAID Collaborative Antiviral Study Group. Also in the 1970s he and other scientists conducted essential studies concerning the pathogenesis and treatment of human cytomegalovirus infections both in normal and immunocompromised hosts. These studies were among the first to address viral pathogenesis and treatment in humans, and they laid the foundation for Dr. Hirsch's career-long dedication to translational research.

In the 1980s, Dr. Hirsch and his fellows shifted their attention to AIDS research, where some of his most noteworthy research contributions have been made. The Hirsch group studies showed that both male and female genital secretions could harbor infectious HIV, underscoring the concept that the infection could be sexually transmitted between the sexes. They also demonstrated that HIV-1 could be isolated from cerebrospinal fluid, brain, spinal cord, peripheral nerve and retinal tissues, helping to substantially broaden the clinical spectrum of HIV infection.

"Dr. Hirsch is a highly regarded clinician and teacher," says Dr. Fauci. "The infectious diseases training program at the Massachusetts General Hospital and Harvard Medical School is widely renowned and has been the focus of training for many current national leaders in infectious diseases."

The roster of Dr. Hirsch's trainees through the years is a veritable Who's Who of HIV investigation. Many of the

people trained under his supervision have gone on to become international leaders in science and medicine. These include Drs. David Ho, Robert Schooley, Scott Hammer, Roger Pomerantz, Joe Eron and Bruce Walker, among many others. “To a person,” says Dr. Raphael Dolin, “they consider their mentorship under Marty as a seminal event in their career development; in public and private, each refers to him/herself as an FoM—Fellow of Marty. His fellows speak glowingly about Marty’s high standards, his warmth and his devotion to the advancements of science.”

For his training achievement Dr. Hirsch was the first recipient of the Infectious Disease Society of America Mentor Award in 2001. He was honored for his contributions by the same society in 2004 as the recipient of the John F. Enders Lectureship in Medical Virology and by his five-year appointment to the post of editor-in-chief of the *Journal of Infectious Diseases* in 2003, recently renewed for another five-year term. He has received many additional honors from other organizations, including the Clinical Virology Award for 2000 by the Pan American Society for Clinical Virology; the Medal of Science from his alma mater, Hamilton College, in 2005; the John Carey Memorial Lectureship from Case Western Reserve University in 2006 and election to membership in both the American Society for Clinical Investigation and the Association of American Physicians.

In addition to Dr. Hirsch’s countless contributions to the field of virology research and the pathogenesis and therapy of viral diseases, he has made a multitude of other important contributions in many other areas of academic medicine and clinical research. He has chaired the NIH AIDS Program Advisory Committee and was the first national

chair of what is now known as the NIH AIDS Clinical Trials Group. “In each area of his interest, Dr. Hirsch has shown a remarkable ability to take on difficult challenges and have the insight, persistence and skills needed to succeed,” says Dr. Joseph B. Martin. “Dr. Hirsch’s contributions have also been a remarkable blend between the highest quality basic science and its application to clinical problems.”

To boot, Dr. Hirsch is the author of more than 240 original papers and more than 160 chapters and review articles. In addition to his editorship of the *Journal of Infectious Diseases* he is also an infectious diseases editor of the online textbook, *UpToDate*. He has also served on the editorial boards or as an associate editor of many additional medical journals, including *The New Journal of Medicine*.

All the while, Dr. Hirsch has been a husband for 43 years to his wife, Corinne and father of Michael, 38, a psychiatrist and Tera, 40, a psychologist. He and Corinne have three granddaughters.

In what little spare time he has, Dr. Hirsch enjoys sports, music, reading, and traveling. “I played baseball and basketball in high school, college, and thereafter,” he says, “but gave both up after a hip replacement six years ago.”

He still plays tennis.

“Marty Hirsch is a consummate scientist, scholar and mentor,” says Dr. Dolin. And, he adds, the Maxwell Finland Award is “a most fitting recognition of these accomplishments.”

DR. HIRSCH ESTABLISHED  
AN APPROACH WHICH  
BECAME A MODEL FOR  
THE DEVELOPMENT OF  
ANTIVIRAL CHEMOTHERAPY  
FOR HERPESVIRUS  
INFECTIONS.