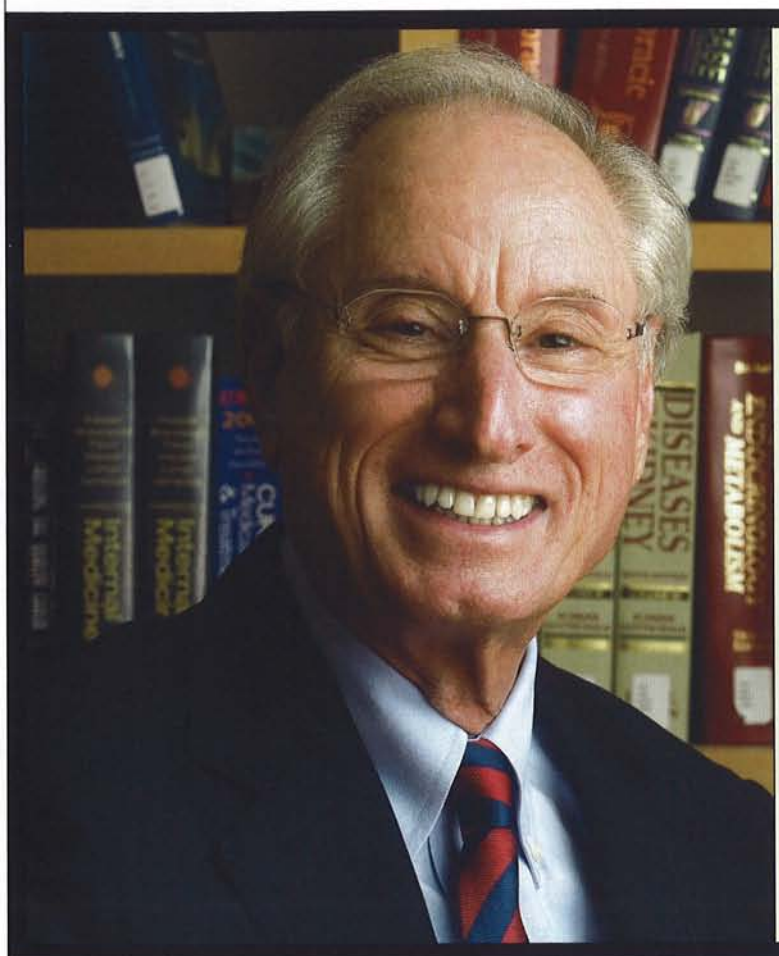
by Terri Yablonsky Stat



Jack Remington, MD '56

Relentless Pursuit

Once toxoplasmosis captured the interest of Jack Remington, he relentlessly pursued the inner workings of the disease over the next 50 years, using it as a model for understanding other opportunistic infections.

In the process, his natural curiosity and tenacious work ethic have made him a world-renowned clinician and researcher in infectious diseases who has pioneered diagnostic tests and treatment regimens used the world over. Remington's rigorous standards also have helped mold generations of leaders in infectious disease.

In recognition of his achievements, Remington was chosen as the recipient of the 2006 Distinguished Alumnus Award from the UIC College of Medicine, one of numerous honors that have been bestowed on him. He also has received the Bristol Award of the Infectious Diseases Society of America, a doctor honoris causa degree from France, the Alexander von Humboldt-Stiftung Scientific Award from Germany, the Osler Gold Medal from and honorary membership in the Royal College of Physicians in London, the Distinguished Career Achievement Award from the International Immunocompromised Host Society and multiple awards from Stanford.

Remington is recognized internationally for his work with Toxoplasma gondii, a microscopic parasite that can cause eye disease, severe disease in newborns and children, and potentially fatal illnesses in individuals with suppressed immune systems. However, infectious disease wasn't his first passion.

As a teen growing up in Chicago he was inspired initially to be a neurosurgeon when he saw a child wearing leg braces on the steps of a Chicago public library. Remington's father explained that the child had polio and might never walk again without those braces. "That's when I decided to go to medical school and work on regeneration of the central nervous system," he recalls.

Instead, at the UIC College of Medicine his natural proclivity for research and understanding of disease caught the eye of Harry Dowling, MD, at the time the chief of medicine. Invited to assist on immune-related research, Remington worked side-by-side with Dowling throughout medical school and with his colleagues George Jackson, MD, and Mark H. Lepper, MD. "They were a nationally recognized triumvirate

of infectious disease experts at UIC," Remington remembers.

In 1957, while completing his internship, Remington became one of just 12 young physicians invited to join the first group of research associates at the National Institutes for Health in Bethesda, Md. Taking classes in the morning and conducting research in the afternoon, Remington began to unravel the mystery of toxoplasmosis, the infection caused by T. gondii.

"What made infectious diseases so exciting to me was the tremendous challenge of new diseases to consider, new therapeutic modalities to work with, and new classifications of very sick patients, especially immunocompromised patients, such as those with cancer, organ transplants and, eventually, AIDS," Remington explains.

Several years later Remington's fortuitous career path gained clarity when he discovered that Dowling had nominated him for the NIH research program. His mentor had further plans for him as well. "Dr. Dowling visited me during my second year at the NIH, and he suggested I work with Dr. Maxwell Finland at Harvard, who was known as the 'father of infectious disease.'"

Dowling had been Finland's first postdoctoral fellow, and George Jackson, who was head of infectious disease at UIC, also had trained with Finland. "It was like a family tree," says Remington. "People at the College of Medicine, including Dowling, Jackson and Lepper, opened a path that got me to the NIH and Harvard. I am very thankful for the opportunities they provided to me."

After studying with Finland at Harvard, in 1962 Remington joined the faculty of Stanford University School of Medicine, where he is now a professor emeritus in the department of medicine, division of infectious diseases and geographic medicine. He also is Marcus A. Krupp research chair and chairman emeritus of the department of immunology and infectious diseases at the Research Institute of the Palo Alto Medical Foundation.

Remington established the Toxoplasma Serology Laboratory at PAMF, where he developed many landmark tests based on his work with T. gondii. To this day, this lab serves as a reference laboratory for medical centers and laboratories throughout the U.S., including the U.S. Centers for Disease Control and Prevention and the Food and Drug Administration.

The methods Remington and his associates developed are included in a panel of serologic tests to determine if a pregnant woman is at risk of passing on toxoplasmosis to her fetus and causing serious birth defects. The tests and consultation with Remington's group of physicians has been shown to decrease unnecessary abortions by 50 percent. "Our lab is the only place in the U.S. that makes this panel of tests available," Remington observes.

"There should be some mechanism whereby doctors and patients are informed how to prevent this disease," he adds. "All pregnant women should be instructed to make sure the meat they eat is well-cooked. Also, if an expectant mother works in a garden or plays with children in a sandbox, she needs to wear gloves and wash her hands afterwards. The message doesn't get out there."

In the early 1970s Remington and his colleagues developed what is known now as the TORCH battery of tests, so named for its use in detecting antibodies related to toxoplasmosis, rubella, cytomegalovirus, herpes and syphilis. TORCH is used worldwide to diagnose these infections in newborns and adults.

When AIDS surfaced in the early 1980s, Toxoplasma was identified as a cause of life-threatening encephalitis in HIV-infected patients. His lab tested nearly all the drugs used to treat toxoplasmosis in AIDS patients.

The extent of Remington's research is evident in the books and more than 600 journal articles he's authored or co-authored. Remington merged this research with his clinical work. For more than 30 years, he treated patients with infectious diseases in the hospital as a consultant in infectious diseases at Stanford Medical Center and the Palo Alto Medical Clinic.

"Nowadays it's difficult to combine basic science and clinical medicine and to be an expert in both," he observes. "The burgeoning amount of information and the difficulty of getting funded are deterring many young people who desire a future in academic medicine."

Of all his accomplishments, Remington feels his greatest achievement is the training he personally provided to more than 65 postdoctoral fellows, many of whom have gone on to become leaders in academic medicine. "I greatly enjoy mentoring," Remington says. "These fellows carry on what I have tried to teach about diagnosis, treatment and prevention of infection.

"Those of us performing both basic science research and clinical care and teaching were under a lot of pressure, because doing it takes tremendous time away from the family. You're either in the laboratory or on the wards of the hospital. Success is a double-edged sword. You sacrifice a great deal and wonder later whether you had the right balance."

After decades of putting diseases, fellows and himself to the test, Remington now enjoys the leisure he long sacrificed. Today, he's working on his golf game and "trying to break 150," he chuckles. Still, scientific inquiry maintains its allure for him, and he intends to continue to write and contribute to clinical research as a consultant.

"I'm still motivated by the excitement and challenge of trying to provide greater benefit to patients through our studies of the organisms that infect them, the treatment modalities that could be used, and the epidemiology of the infection itself."