Proctor Award and Lecture

Waldon B. Wacker

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On Presentation of the Proctor Award of the Association for Research in Vision and Ophthalmology to Drs. Waldon Wacker and Robert Nussenblatt

Gerald J. Chader

It is my pleasure to introduce Dr. Waldon Wacker and Dr. Robert Nussenblatt, co-recipients of the 1991 Proctor medal. Although the backgrounds of our two recipients are quite different, their work has been melded in a classic collaboration that should be used as a model for all basic and clinically oriented studies.

Walt was born in Garrison, North Dakota, and had a typical small-town upbringing and early education. After a short stint at a business college, he enlisted in the Navy in World War II where he was assigned to the hospital corps. While attending lab school, he first developed his interest in immunology and immunopathology. After the service, he entered Washington University in St. Louis, where he received his AB degree in 1949. Then he received a master's degree in microbiology from the University of Michigan. Walt then worked for 3 years in a VA hospital in Dayton, Ohio, but found it unsatisfying and obtained a fellowship to graduate school at Ohio State. There he continued the singular thread in his career: the study of immunopathology. Specifically, he chose Dr. Matthew Dodd as his preceptor, who, at the time, was already working on autoimmune uveitis. Walt's PhD thesis was, of all things, on "Autoantigens of the Uvea and Cornea." A short postdoctoral period was then spent at Ohio State where he did important studies on a particularly virulent outbreak of what was known at the time as the "Asian flu."

With all this experience under his belt, Walt moved to the University of Louisville in 1959 to work on immunologic tolerance in the Department of Microbiology with Dr. Murray Lipton, a noted worker in the field of autoimmune encephalomyelitis. In 1965, a new eye institute was being planned at Louisville, and Walt was lured to his final home, the Department of Ophthalmology, where for the next 25 years, he was to do the major part of his work in putting the field of ocular immunology on a firm biochemical footing.

Throughout this time, there was another person, a light-year away in background, born and bred in the big city, who was to overlap Walt's research and take it to its logical clinical conclusions. Robert Buron Nussenblatt was born in New York City, went to high school in New York City, got a BS at City College in New York City, and received a MD degree in 1972 at the Downstate Medical Center in New York City. This was followed by an internship and residency in internal medicine at Bellevue Hospital in, of course, New York City. Finally, and luckily for us, Bob chose to do a second residency in ophthalmology starting in 1974 at the New York University Medical Center.

Bob had been bitten by the research bug though, and in 1977, he accepted a position with Drs. Carl Kupfer and Elmer Ballintine as a clinical associate at the National Eye Institute (NEI) in Bethesda where his clinical duties were to allow for part of his time to be devoted to immunologic research. Bob's obvious clinical talents and his basic science skills were quickly recognized at the NEI. He was made a senior staff ophthalmologist in 1979, chief of the clinical ophthalmic immunology section in 1981, head of the laboratory of immunology in 1986, clinical director in 1987, and most recently, scientific director of the entire institute a few months ago.

Well, without stealing any of the thunder from the two presentations you are about to hear, it is both the individual careers and the crossing of the two that have produced the marvelous research that many of you already know about. In one of his first major papers in 1965, Dr. Wacker set the stage for all of his subsequent work. In it, he outlined the two major themes of his career: first, to establish an experimental model for uveitis and, second, to nail down the nature of the uveitogenic antigen. Interestingly, Walt tells me that this paper was rejected from Science because "it had limited appeal and belongs in a specialty journal." I'm sure that many of you (as I) have heard this excuse for rejecting a piece of work of general importance just because it uses the visual system. Luckily, however, the paper was then submitted to Nature, and it was accepted without change. In the next few years, Walt continued the theme of experimental uveitis and broadened the experimental autoimmune uveitis...
(EAU) model to studies on the guinea pig and rabbit. In a pivotal paper in 1977, Walt and his collaborators did the major part of the work in isolating and characterizing the S-antigen, proving it was of retinal origin, and demonstrating the immunopathogenic nature of the purified protein.

A seminal event occurred in 1978 when Bob invited Walt to the National Institutes of Health to give a seminar on his EAU model and its clinical relevance. This began the collaborative phase of their work on EAU, often with Igal Gery. Of importance, was the establishment of cyclosporine as a treatment modality in EAU.

Walt retired in 1985 and is now professor emeritus at Louisville, but Bob has continued the superb work built on the EAU framework. Certainly, neither Walt nor Bob have limited their studies to only EAU. In a very important paper published in *Science*, for example, Bob and his co-workers demonstrated that organ-resident cells could suppress proliferation of autoimmune T-helper lymphocytes and thus help to maintain tissue homeostasis. Most recently, he has likewise been a leader in the study of ocular complications of acquired immune deficiency syndrome. I must tell you one more fact about Bob that really impressed me. A few years ago, he saw the power of applying molecular biological techniques to immunopathologic questions and set about learning the fundamentals of molecular biology. Not only has he done this, but he has cloned the 5' end of the human S-antigen with his own hands. I find this extraordinary. Walt, I think that you can rest easy in your retirement, knowing that Bob has taken up where you left off!

Finally, a 4-minute run-through of a man’s career hardly does justice to the man himself. Nowhere will you find two finer human beings than Walt and Bob. In retirement, Walt is now able to spend a lot more time with his wife Jean after raising a family of three and spending all his extra time at the lab. In mid-career, Bob juggles clinical, research, and administrative duties and yet finds time to be with his wife Rosine and their children. A recurrent theme I have heard from the now scattered members of Walt’s old lab in Louisville is that “although we worked hard, it was always a fun place to be.” Similarly, Bob always is in good humor and works easily with people to effect the best results, be they scientific or personal. It is with the greatest pleasure then that I introduce to you two excellent scientists and wonderful people: the co-recipients of the 1991 Proctor Medal, Drs. Waldon Wacker and Robert Nussenblatt.