On presentation of the Proctor Medal of the Association for Research in Vision and Ophthalmology to Tsuneo Tomita

The Proctor Medal is the senior research award of the Association for Research in Vision and Ophthalmology (ARVO). It was endowed by a gift in 1947 from Mrs. Francis I. Proctor in memory of her husband, a distinguished ophthalmologist who had an active interest in ophthalmological research.

Tsuneo Tomita is the recipient of the 1975 Proctor Medal. His eye research began under the difficult circumstances of post-World War II Japan. In fact, he was a witness to the dramatic events that ended the war. After nearly six years of war-time military service, Lt. Tomita, well known for his pre-war work on the auditory system, was assigned to Hiroshima to search for an antidote for the acoustic mines that the Americans had planted in Japanese coastal waters. The acoustic mine had a large number of fuses that were activated one by one, each responding to a crescendo. Before placement the mines were randomly pre-set to a particular fuse so that the time of detonation was impossible to predict. Furthermore, sweeping by a decoy boat with a loud noise served to activate only one fuse at a time. Solving this problem was to prove almost as difficult as solving those of the eye in subsequent years.

On August 6, 1945, Lt. Tomita was stationed about nine kilometers from downtown Hiroshima. During his breakfast at 8:15 A.M., the reflected light of a blinding flash illuminated the room. From his window overlooking the city he saw the neighboring mountains shimmer in the distortion caused by the lens effect of the compressed shock wave of the atomic bomb blast.

The war ended officially nine days later. He made his way back to Tokyo, but there was little to eat, no place to live (almost all homes in the cities had been destroyed by incendiary bombs), and little equipment for research. This is one of the reasons Tsuneo Tomita turned to eye research. Physiological study of the auditory system requires an anechoic chamber, eye research only a black cloth.

A few years later he studied for a year at Johns Hopkins University in the laboratory of H. K. Hartline. At this time he also began a long association with other American scientists.

After returning to Japan, he became Professor of Physiology at Keio University School of Medicine where he continued research on the electrical activity of the retina. He developed tools and techniques such as the co-axial electrode and the jolter which he painstakingly applied to retinal problems, including that of the physiological characterization of the vertebrate photoreceptor. His work is outstandingly important. It is being recognized by the highest award of the Japan Academy of Sciences which is to be presented in June 1975, as well as by the Proctor Medal.

Tsuneo Tomita has also found time to encourage younger scientists. He gathered around him a distinguished group of col-
leagues including M. Murakami, J. Toyoda, A. Kaneko, and K. Naka. Each of these men has gone on to put his own mark on vision research. Two years ago Tsuneo Tomita became professor emeritus at Keio. For the past five years we have been very fortunate because he has spent a part of each year in this country where he is Professor of Ophthalmology and Visual Science at Yale Medical School. It is indeed a pleasure to present to you Tsuneo Tomita who will address us on “Electrophysiological Studies of Retinal Cell Function.”

W. M. Miller