Introduction of William L. Pak
1995 Recipient of the Friedenwald Award

It is my privilege and pleasure to introduce my colleague and friend, Dr. William L. Pak, who is The Paul F. Oreffice Distinguished Professor of Biological Sciences at Purdue University, West Lafayette, Indiana. As you will see, an important characteristic of Dr. Pak’s is his willingness to change scientific directions and to pioneer new scientific areas, and to do this while maintaining consistently high standards.

Bill, son of a Methodist minister, was born 27 September 1932 in Suwon, Korea. He is the oldest of the children and has two brothers and one sister. At the time of the outbreak of World War II, his father was studying at Dubuque University in Iowa, and the family was reunited after the war in Hawaii, where Bill attended the later elementary grades and high school. Perhaps as a sign of his later leadership qualities, he was student body president at Leililhua High School. In 1951, Dr. Pak proceeded to Boston University as a Buck Scholar, where he majored in physics and graduated in 1955 summa cum laude. After graduation, he went to graduate school in physics at Cornell University.

At this point I would like to tell you about another important aspect of his life, his family. On 21 June 1958, while at Cornell, he married Marion Whitehouse, whom he had met in 1954 and who had received her B.S. degree in physics at Simmons College in Boston. They just celebrated their 37th anniversary. They have two children, William Louis, born 20 January 1961, and Dorothy Kim, born 29 May 1963.

Bill Jr. received his B.A. degree at Indiana University in telecommunications and music. He is working at the Woodwind and Brasswind Company in South Bend, Indiana, and also teaching piano and organ. He is married to Mary Dillon.

Dotti received her B.S. degree in geology from Mt. Holyoke College, South Hadley, Massachusetts, and an M.S. in marine geology from the University of Wisconsin. She is completing a Ph.D program in geology at Columbia University. She is married to Jordan Clark.

At Cornell, Bill studied in the Laboratory of Nuclear Studies with Dr. Kenneth Greisen and received his Ph.D. in 1960. His thesis title was “Nuclear Interactions of High Energy Muons Observed at Sea Level.” In 1960, after receiving his Ph.D., Dr. Pak became an instructor and later an assistant professor of physics at Stevens Institute of Technology, Hoboken, New Jersey. His publications from that time are in the area of high-energy cosmic ray physics. Three years after his arrival at Stevens Institute, while an assistant professor, he made the first of his critical career decisions. He decided to take a postdoctoral appointment with the Committee in Biophysics at the University of Chicago. After a year of study, he began research in vision on the early receptor potential of the rod photoreceptors from frog and rat in the laboratory of Dr. John Platt. Working with Dr. Platt, as well as Richard Cone and Tom Ebrey, who were graduate students in the laboratory, some of the well-known work on early receptor potential was conducted. This potential is used clinically to evaluate the state of the visual pigment in the eye.

In 1965, Dr. Pak took an appointment as an assistant professor of biological sciences at Purdue University. He was promoted to associate professor in 1967, to professor in 1972, and to distinguished professor in 1987. Dr. Pak’s early publications from Purdue are related to the early receptor potential. At the same time, he began work in the area of electrophysiology of vertebrate photoreceptors. Two years after his arrival at Purdue, he made another important decision—that intracellular electrophysiologic recording was required to obtain more detailed data. To learn that new technique, he became a visiting scientist in the laboratory of Dr. Tsuneo Tomita (Keio University, Tokyo, Japan). As a result of that time, he brought that technique to his own laboratory and used it in studies of the visual system.

A major milestone occurred in the winter of 1966, when, while continuing his electrophysiologic studies, he decided to develop and use mutants of Drosophila for studies of the visual system, although at the time there were no precedents for the isolation of mutants that were defective in photoreceptor function. His first publication in this area appeared in 1969. Until now, the Pak laboratory has isolated more than 270 electroretinogram (ERG)-defective mutants at more than 60 different genetic loci. In recent years, by combining his genetic approach with the techniques of molecular biology, he has enhanced the power and implications of his approach. Dr. Pak is recognized worldwide for his use of genetics to evaluate the processes of the visual system. In part due to Dr. Pak’s consistent efforts, it is now widely acknowledged that Drosophila is one of the premier organisms for molecular studies of biologic processes, including the visual system. Some indication of the recognition previously accorded to...
Dr. Pak are his receipt, in 1982, of the Purdue University Herbert Newby McCoy Award for Outstanding Research, his appointment in 1987 as Paul F. Oreoffice Distinguished Professor of Biological Sciences, and his receipt in 1989 of an National Institutes of Health MERIT award. He is also a member of Phi Beta Kappa, an NIH Career Development Awardee, and has served on the Visual Sciences B Study Section and the NIH Vision Research Review Committee.

Sanford E. Ostroy

References


William L. Pak