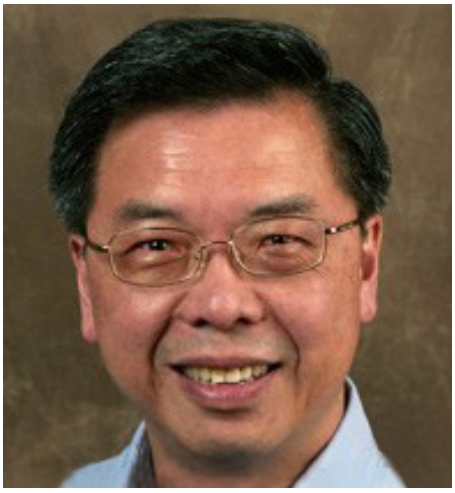
ASPB Pioneer Member

Tuan-hua David Ho



Tuan-hua David Ho obtained his PhD in biochemistry from the DOE Plant Research Laboratory at Michigan State University in 1976. After two years as a Jane Coffin Childs postdoctoral fellow in the Department of Biology at the Massachusetts Institute of Technology, he took a position as an assistant professor in the Department of Plant Biology, University of Illinois at Urbana–Champaign. In 1984, he moved to Washington University, where he spent most of his career in the Department of Biology. From 2003 to 2008, he also served as the director of the Institute of Plant and Microbial Biology (IPMB), Academia Sinica, Taipei, Taiwan. Ho's leadership at IPMB was crucial in revolutionizing the Institute by upgrading its research capacities and advancing its international visibility. At the same time, he also contributed broadly to promoting and coordinating agricultural biotechnology in Taiwan.

Ho's research concentrated on the hormonal regulation of seed germination and plant responses to environmental stresses. His early work contributed to understanding the cereal aleurone layers' physiological role during seedling growth. Several key hydrolytic enzymes involved in this process have been studied, purified, and the genes encoding them cloned in his laboratory. Much of his work centered on hormonal regulation of gene expression, programmed cell death, and the role of stress-induced proteins. His group played a major role in defining the cis-acting promoter sequences necessary and sufficient for GA- and ABA-regulated gene transcription. His work also addressed the role of protein kinases and phosphatases, transcription factors, and other components in signal transduction pathways mediating the antagonism between GA and ABA. Later, he became interested in biofuel-related research, especially on microbial enzymes capable of hydrolyzing lignocellulosic materials.

Ho is a fellow of the American Association for the Advancement of Science (AAAS; 2004), a member of Academy for the Developing World (TWAS; 2004), a member of Academia Sinica (Taipei; 2002), and an elected Fellow of the American Society of Plant Biologists (ASPB; 2014). He was recognized as an ISI most-cited researcher in Animal and Plant Sciences in 2003, a Burris Distinguished Lecturer at South Dakota State University in 1993, and a UNESCO Professor at Peking University in 1994. He served as the director of the Plant Biology Program at Washington University from 1987 to 1989. He was an editor of the Journal of *Plant Growth Regulation* from 1989 to 2001 and a member of the editorial board for *Developmental Genetics* from 1984 to 1990. He served on various government research panels, including the NSF Developmental Biology Program (1993–1994), USDA–NRI Genetic Mechanism Program (1981–1983), Stress Biology Program (1985–1986), and Special Grant Program (1994). He was manager of the USDA Plant Responses to the Environment Program in 1993 and chaired the review panel of USDA National Program 302: Plant Biological and Molecular Processes.

Tuan-hua David Ho joined ASPB in 1973. He served on the Program Committee from 1994 to 1997, the International Committee from 2003 to 2007, Chair of the Corresponding Membership Committee from 2001 to 2003, and President from 2009 to 2010. He was the Society's representative to AAAS from 1992 to 1994 in the sections of Biological Sciences and Agriculture, Food, and Renewable Resources. From 1982 to 1993, he was on the editorial board of *Plant Physiology* and was a monitoring editor from 1995 to 2001.

As a long-time member of ASPB, Ho was passionate about promoting the role of the Society in the international arena. In addition to emphasizing outreach, education, academic publication, and public

continued on next page

ASPB Pioneer Member

TUAN-HUA DAVID HO *continued*

affairs, he promoted ASPB to play a major role in bridging academic and industrial interests. He encouraged the plant biology community to solve problems related to food, energy, environment, and sustainability.

Tuan-hua David Ho supervised trainees with geographic and ethnic diversities, including 22 PhD students, 15 Masters students, 34 postdoctoral fellows, and several dozen undergraduate and high school students. Many of his trainees carried on his philosophy in research, technical development, and educational roles worldwide. He was invited to give more than 300 seminar and symposium lectures since 1976. He published 150 papers that have received more than 14,100 citations. Twenty-four of these papers, with Tuan-hua David as the first or corresponding author, have been cited more than 100 times. Also, he co-edited a book entitled *The Past, Present and Future of Plant Biology.* His research had many practical applications, and a total of 17 patents were granted in the U.S. and other countries (China, Taiwan, Mexico, and the Philippines). These patents reflected his advocation that plant biologists should transform knowledge gained from research to meet societal needs.