Joseph H. Holmes Pioneer Award-Basic Science

In 1977, the Pioneer Award, which honored an individual who significantly contributed to the growth and development of diagnostic ultrasound, was established. This special award was renamed in 1982, to honor Joseph H. Holmes, MD, who died that year. Dr Holmes, the first person named as an AIUM pioneer, was an important figure to both the field of diagnostic ultrasound and the AIUM. His early efforts in ultrasound research, which included tissue characterization and ultrasound's diagnostic use in polycystic kidney disease and orthopedics, helped to advance the field of ultrasound and encourage others to conduct new research. Serving the AIUM in many capacities, Dr Holmes was president from 1968 to 1970 and was editor of the AIUM's official journal, which was then titled, the Journal of Clinical Ultrasound, for nearly 10 years. Each year the Joseph H. Holmes Pioneer Award honors two current or retired AIUM members, one in clinical science and the other in basic science.

Pai-Chi Li, PhD, FAIUM

Prof Pai-Chi Li, a distinguished electrical engineer, has left an indelible mark on the field through his pioneering work in ultrasound technology. Born in Taipei, Taiwan, Prof Li's journey into engineering began with a fascination for electrical circuits, eventually leading him to explore the potential of ultrasound in medical applications.

Prof Li's academic pursuits led him to National Taiwan University, where he pursued a Bachelor's degree in Electrical Engineering. His passion for innovation and dedication to excellence propelled him to excel academically, laying the groundwork for his future endeavors in ultrasound technology.

Upon completing his undergraduate studies, Prof Li pursued graduate studies at the University of Michigan in the United States. Under the guidance of esteemed professors, Prof Li delved into the realm of ultrasound technology, driven by a vision to revolutionize medical diagnostics and treatments through technological innovation. He then earned his PhD in Electrical Engineering: Systems from the University of Michigan, marking the culmination of years of rigorous research and academic pursuit.

Following the completion of his doctoral studies, Prof Li joined Acuson Corporation, Mountain View, CA, where his work was primarily in the areas of medical ultrasonic imaging system design for both cardiology and general imaging applications.

A few years later, Prof Li embarked on a prolific academic career, assuming faculty positions at his alma mater, National Taiwan University. His tenure as a faculty member has enabled him to spearhead cutting-edge research initiatives aimed at advancing ultrasound technology for

medical applications. His current research interests include biomedical ultrasound, photoacoustics, and medical devices.

Prof Li's research breakthroughs have not only earned him international recognition but have also garnered numerous prestigious awards and accolades, such as the International Federation for Medical and Biological Engineering (IFMBE)'s Otto Schmitt Award, which is given to a Biomedical Engineer for exceptional contributions to the advancement of the field of medical and biological engineering.

Beyond his scholarly pursuits, Prof Li is deeply committed to nurturing the next generation of engineers and scientists. As a mentor and educator, he imparts not only technical knowledge but also instills in his students the values of innovation, collaboration, and ethical responsibility—qualities essential for driving progress in the field of ultrasound technology.

In addition, as a Board Member of the International Congress on Ultrasonics (ICU), a member of the Safety Committee of the Asian Federation of Societies for Ultrasound in Medicine and Biology (AFSUMB), and a member of more, Prof Li's efforts have led to the development of cutting-edge ultrasound technologies with the potential to revolutionize healthcare delivery worldwide.

Prof Li has also helped advance the field of ultrasound technology by serving as the Editor-in-Chief of the *Journal of Medical and Biological Engineering* (2009-2014) and is a Deputy Editor of *Ultrasound in Medicine and Biology*, an Associate Editor of *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, and on the Editorial Board of *Ultrasonic Imaging* and *Photoacoustics*.

As the demand for noninvasive and precise medical imaging continues to grow, the pioneering work of Prof Pai-Chi Li in ultrasound technology assumes ever greater significance. Through his unwavering dedication to advancing the frontiers of medical engineering, Prof Li continues to inspire innovation and shape the future of healthcare, leaving an enduring legacy in the field of ultrasound technology. For this reason, the American Institute of Ultrasound in Medicine is proud to honor Pai-Chi Li, PhD, FAIUM, with the 2024 Joseph H. Holmes Pioneer Award for Basic Science.