

Joseph H. Holmes Basic Science Pioneer Award

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 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 2 current or retired AIUM members, 1 in clinical science and the other in basic science.

Keith A. Wear, PhD, FAIUM, FASA, FAIMBE



This year, the AIUM would like to honor Keith A. Wear, PhD, with the Joseph H. Holmes Basic Science Pioneer Award. Dr Wear has shown his dedication to advancing the use of basic science through his numerous contributions to seminars, journals, and grant application review committees, in addition to his vast leadership within the AIUM.

Dr Wear began his career in basic science as a research assistant in the Cardiology Department at Stanford University in 1983 while he was earning his PhD, which he received in 1987. He also worked as a postdoctoral fellow in the Physics Department at Washington University (1986–1989) as well as at the National Academy of Sciences and US Food and Drug Administration (FDA; 1989–1990) before moving on to his current positions as a research physicist for the FDA (1990–present) and laboratory leader at the FDA Center for Devices and Radiological Health, Ultrasonics Lab (2014–present). Dr Wear also was an adjunct professor in the Radiology Department at Georgetown University (2000–2002) and a guest scientist at the Henry M. Jackson Foundation for the Advancement of Military Medicine (2000–2005).

His contributions to the field of ultrasound have not stopped there, however. Dr Wear has also contributed as a fellow of the American Institute for Medical and Biological Engineering (since 2004), the AIUM (since 2004), and the Acoustical Society of America (ASA; since 2009), as a senior member of the Institute of Electrical and Electronics Engineers (IEEE; since 2000), and as a member of IEEE Ultrasonics Society.

As a member of the AIUM, Dr Wear has been elected to serve as chair 4 times on AIUM committees, communities, and sections. He is the primary liaison representative from the FDA to the AIUM Technical Standards Committee. In addition to his volunteer work with the AIUM, Dr Wear has contributed to the ASA, the American Association of Physicists in Medicine, the

Quantitative Imaging Biomarkers Alliance, and the IEEE, as well as acted as liaison from the FDA to the International Electrotechnical Commission.

Dr Wear's list of contributions to the field continue as an Associate Editor on journals, including *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, *Journal of the Acoustical Society of America*, and *Ultrasonic Imaging*, and as a reviewer for more than a dozen more. In addition, he has been an invited speaker at numerous conferences, holds a patent, has given lectures at Catholic University of America, has been on several grant application review committees, has been invited to consult for the National Aeronautics and Space Administration and the Department of Defense, has given invited seminars at universities and federal government research laboratories, and has frequently published peer-reviewed articles.

The AIUM is proud to honor this dedicated physicist, Keith A. Wear, PhD, whose work has contributed so significantly to medical ultrasound and its future.