

Joseph H. Holmes Clinical Pioneer Award

The Pioneer Award, which honors individuals who have significantly contributed to the growth and development of medical ultrasound, was established in 1977. 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 at least 2 current or retired AIUM members for their work in clinical science or basic science.



Wesley Lee, MD, FAIUM

A native of Oregon, Dr Lee earned his medical degree from Oregon Health Sciences University before moving to Texas to complete a residency at Parkland Memorial Hospital in Dallas and a maternal-fetal medicine fellowship at Baylor College of Medicine in Houston. He remained at Baylor for another 2 years before heading north to Michigan, where he joined William Beaumont Hospital in the Division of Fetal Imaging. He has been a long-time scientific collaborator with the Perinatology Research Branch of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD). In 2011, Dr Lee moved to Baylor College of Medicine and Texas Children's Hospital in Houston. As division director of women's and fetal imaging in the Department of Obstetrics

and Gynecology, he has developed a Fetal Imaging Research Group that includes expertise in maternal-fetal medicine, fetal imaging, medical physics, and biomedical engineering.

With more than 30 years of experience in diagnostic ultrasound, he has made several contributions in prenatal diagnosis of congenital anomalies, fetal growth, 3-dimensional (3D) and 4-dimensional fetal ultrasonography, ultrasound education, and fetal magnetic resonance imaging (MRI). He is particularly interested in the development and application of novel imaging techniques, such as 3D ultrasound and advanced MRI applications during pregnancy. Dr Lee developed the concept of fractional limb volume as a novel soft tissue parameter of fetal nutritional status. His work with the NICHD Perinatology Research Branch led to the establishment of measurement reproducibility, normal reference ranges, fetal weight prediction models, and prospective validation of fractional limb volume for improving the precision of fetal weight estimation. In 2015, he received a 3-year NICHD contract as a principal investigator to analyze fetal body composition and 3D soft tissue parameters for the National Fetal Growth Study.

Dr Lee has given selflessly of his time. He has reviewed articles for many journals, including the *American Journal of Obstetrics and Gynecology*, *Ultrasound in Obstetrics and Gynecology*, and the

Journal of Ultrasound in Medicine, just to name a few. He has served as a deputy editor of *the Journal of Ultrasound in Medicine* for the past 7 years. As the former chair of the Clinical Standards Committees for both the AIUM (1996–2001) and the International Society of Ultrasound in Obstetrics and Gynecology (ISUOG; 2006–2010), he has helped develop clinical practice guidelines for prenatal ultrasonography. He has also served as a task force chair for an obstetric and gynecologic ultrasound lecture series on behalf of several organizations (AIUM, American College of Obstetricians and Gynecologists [ACOG], Council on Resident Education in Obstetrics and Gynecology, Society for Maternal-Fetal Medicine, ISUOG, and American College of Radiology). Dr Lee has shared his expertise with the AIUM by serving in more than a dozen different roles, including the Membership Committee, Postgraduate Course Committee, Board of Governors, Obstetric and Gynecologic Ultrasound Section chair, and so much more. The AIUM is grateful for the support that he has been providing these last 2 decades.

Ultrasound education has been an important part of Dr Lee’s professional career. Dr Lee was a scientific advisor to the World Health Organization for ultrasound training. He has helped develop and maintain 2 educational websites that focus on prenatal ultrasound. He was the primary developer of a teaching CD-ROM with ACOG (Fetal Ultrasound Simulator) as part of a phase I National Institutes of Health Small Business Innovations Research Award that led to more than 3000 copies sold worldwide. He has also directed many postgraduate courses on behalf of national and international organizations.

Dr Lee is an exceptional maternal-fetal medicine physician. He has authored 180 peer-reviewed articles, 26 book chapters, and 1 textbook and has produced a dozen journal cover images. It is the honor of the AIUM to present this year’s Joseph H. Holmes Clinical Pioneer Award to Dr Lee.

