Memorial Hall of Fame

Established in 1981, the Memorial Hall of Fame serves as a posthumous tribute to a creative and devoted physician, research scientist, or other individual who has been an active member of the AIUM and contributed to the field of ultrasound in medicine.

Jonathan Ophir, PhD, FAIUM

Dr Ophir was born in Haifa, Israel, on January 12, 1945. After completing Reali High School in Haifa at age 17, he joined the Israeli Army in 1962 and was transferred to the Israeli Air Force (IAF) in 1964. Through the IAF, he came to the United States to the Lackland Air Force Base in Texas, where he participated in Israel's first battalion to be trained on *Hawk* air defense missiles. On returning to Israel, he translated the training manuals from English to Hebrew.

Shortly after the army, he enrolled at the University of Kansas, where he graduated with a bachelor of science degree in electrical engineering, summa cum laude (1971); he also completed his master's (1973) and doctorate degrees (1977). Jonathan married Karen Marcus while they were completing their college educations.

His work on both graduate degrees was in the emerging field of medical ultrasound instrumentation. His doctorate work was the first digitization of ultrasound imaging, later known as the digital scan converter (DSC), an integral part of an ultrasound machine. His doctorate work coincided with the birth of his only son, Alexander Gabriel Ophir (1974), whose prenatal ultrasound image appears in one of Jonathan's first articles and in his PhD dissertation. He was a project engineer at Philips Ultrasound in California for his doctorate internship year, where he developed the first DSC for a commercial machine.

After 3 years as assistant professor at the Kansas University Medical Center, he joined the University of Texas (UT) Medical School (1980) as assistant professor of radiology. Dr Ophir stayed at UT Health through 2012, when he retired as professor and was granted professor emeritus. During his time at UT Health, he held several adjunct professorships at various universities around the world, where he advised students on joint projects. He was an outstanding teacher and mentor for many graduate and postgraduate students, as well as faculty and residents. Many of his former students are now professors at other universities or working in high-ranking positions in the industry.

Dr Ophir was a pioneer in his work. He invented elastography, an ultrasound imaging technique that is now a state-of-the-art component of ultrasound equipment throughout the world. He coauthored more than 150 journal articles and held 28 US and foreign patents in medical ultrasonics. His work has served as a foundation, and it has been profoundly influential, for the current state of the field. He and his wife Karen, along with his colleague Kevin Parker, PhD, founded, organized, and maintained the highly respected International Tissue Elasticity Conference for more than 12 years. His colleague Jeff Bamber,

PhD, of the Institute of Cancer Research: Royal Cancer Hospital in England, continues to run the conference annually.

His work has received international acclaim and has resulted in major awards, such as the Institute of Electrical and Electronic Engineers Ultrasonics, Ferroelectrics, and Frequency Control Society's Rayleigh Award (2015). He was a semifinalist in the B. F. Goodrich National Collegiate Inventors Hall of Fame. He received several teaching excellence citations from the UT Medical School. Dr Ophir was given the Inventor of the Year Award from Bob Lanier, mayor of Houston, and the Houston Intellectual Property Law Association. He was commissioned as an honorary admiral in the Texas Navy by Texas Governor George W. Bush. Dr Ophir gave numerous invited lectures nationally and internationally and received numerous grant awards from the National Institutes of Health (NIH), National Science Foundation (NSF), state of Texas, and various industrial sources. He was very instrumental in directing a multicenter 10-year program project grant funded by the National Cancer Institute. The objective of this program was to develop novel techniques and instrumentation for high-resolution imaging of the elastic characteristics of breast and prostate cancers in vivo.

Dr Ophir was the associate editor of *Ultrasonic Imaging* and member of the *Ultrasound in Medicine and Biology* and the *Journal of Clinical Ultrasound* editorial boards. He served on numerous review bodies, including NIH Study Sections, the NSF, and the Medical Research Council of Canada. The AIUM is so grateful for his service as a chair of the Technical Standards Committee and past member of the Board of Governors. It is clear that Dr Jonathan Ophir was an amazing man. He died at his home in Austin, Texas, on October 19, 2017. He is survived by his wife Karen and his son Alex. The AIUM is honored to have had the pleasure to call him a member.