IN MEMORIAM: MARVIN ZISKIN, MD, 1936–2022

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It is with sorrow that we report the death of former World Federation for Ultrasound in Medicine and Biology (WFUMB) president Marvin Ziskin at the age of 86 years. A physician as well as a bioengineer, Marvin was actively involved in ultrasound research for more than 57 years. In 1965, as a research associate in Diagnostic Ultrasound at Hahnemann Medical College, Philadelphia, Pennsylvania, he pioneered the establishment of 2-D ultrasonography as a valuable diagnostic modality. In September 1965, a photograph of his laboratory featuring the ultrasonic image of a fetal head appeared on the cover of LIFE Magazine.

In 1968, Marvin returned to his alma mater, Temple University School of Medicine, Philadelphia, where he was a professor and then an emeritus professor of Radiology and Medical Physics. His earliest work at Temple involved studying the physiological meaningfulness of the Doppler signal. While performing blood flow studies in dogs, he noticed a dramatic amplification of the Doppler signal several seconds after intravenous injections of fluids at distant sites. This ultimately led to the development of contrast agents for diagnostic ultrasonography.

In 1972, because of concern for the safety of clinical ultrasound, Marvin conducted an international survey that revealed there were no reported adverse effects from ultrasound. His work on hyperthermia ultimately led to development of the thermal index and the mechanical index, which appear on the screens of current diagnostic ultrasound scanners to help ultrasound practitioners maintain the extraordinary safety record of diagnostic ultrasound.

After investigating the nature of image artifacts appearing in clinical ultrasonograms, Marvin found that an artifact with a tapering appearance seen distal to a highly reflecting object was caused by ultrasonic reverberations between the transducer and object. Because of its shape, he named it a comet tail artifact, a term commonly used in clinical ultrasonography today.

Marvin was president of the American Institute of Ultrasound in Medicine (AIUM) from 1982 to 1986 and a member on many committees, including the AIUM Bioeffects Committee and the AIUM Technical Standards Committee, and was involved in the writing of many safety-related and technical documents. Marvin was chair of the WFUMB Committee on Ultrasound Safety from 1985 to 2006, WFUMB treasurer from 1994 to 2000 and WFUMB president from 2003 to 2006.

Our thoughts are with his wife Leah and children Jennie, Alan and Daniel.