

THE UNIVERSITY OF MICHIGAN

Regents Communication

ACTION REQUEST

Subject: Report of Faculty Retirement

Action Requested: Adoption of Retirement Memoir

Douglas Lawrence Miller, Ph.D., research professor, radiology in the Basic Radiological Sciences Division, Department of Radiology, Medical School, retired from active faculty status on February 18, 2022.

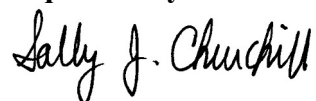
Professor Miller received his B.S. degree in physics (1969) and his M.S. degree in nuclear physics (1971) from The Ohio State University and his Ph.D. degree in biological physics (1976) from the University of Vermont. He advanced to research associate professor (1986) at the University of Vermont, before moving to the Battelle Pacific Northwest National Laboratory where he attained a senior staff scientist position in 1991. He joined the University of Michigan faculty as a senior research scientist in 1998, and was promoted to research professor in 2003.

Dr. Miller dedicated his career to research on non-ionizing radiation bioeffects and safety, particularly in medical ultrasound. His research identified new mechanisms for bioeffects of ultrasound. However, he showed that the worrisome mechanism of acoustic cavitation was unlikely in mammalian tissue with diagnostic ultrasound. Professor Miller studied contrast enhanced ultrasound and documented a potential for patient injury in contrast echocardiography, kidney imaging, and other organs. His leadership at the 2007 American Institute of Ultrasound in Medicine consensus conference established safety guidelines for contrast ultrasound. In efforts to utilize ultrasonic bioeffects for patient benefit, he pursued novel therapeutic applications, including gene therapy by “sonoporation,” and micro-lesioning for tissue reduction. In recent studies, the dosimetry of pulmonary injury by lung ultrasound has been explored with the development of definitive safety guidance for sonographers. Professor Miller was a principal investigator on National Institutes of Health grants for 34 years resulting in 210 peer-reviewed journal publications, nine book chapters, co-authorship on six books, and three invention disclosures with one patent. He mentored four postdoctoral research associates and six research staff. He pursued authoritative safety guidance for 20 years as a member of the distinguished Committee no. 66 of the National Council of Radiation Protection and Measurements.

Professor Miller was awarded the prestigious Joseph H. Holmes Basic Science Pioneer Award from the American Institute of Ultrasound in Medicine in 2006 and the William H. Beierwaltes Collegiate Research Professorship from the University of Michigan in 2008.

The Regents now salute this distinguished researcher and dedicated safety pioneer for the medical ultrasound by naming **Douglas L. Miller, research professor emeritus, radiology**.

Requested by:



Sally J. Churchill, J.D.
Vice President and Secretary of the University

February 2022