

IN MEMORIAM

William S. Moore

It is with great regret that we record the death of Dr. William S. Moore in Boston, Massachusetts, on 25th March 1984 at the age of 47, following a heart attack. Bill Moore was a pioneer in the application of magnetic resonance in medicine, and had made major contributions to imaging by nuclear magnetic resonance (NMR) since 1974. He had moved to Boston in 1983 as Associate Professor of Radiology at Harvard Medical School and Head of NMR Physics at the Brigham and Women's Hospital, after 22 years on the staff of Nottingham University, England.

William Stanley Moore was born on 1st October 1936 in Ardrossan, Scotland, and was educated at Merchiston Castle School in Edinburgh. He won an open scholarship to Caius College, Cambridge University, where he graduated with a B.A. degree in physics in 1958, obtaining his M.A. degree in 1961. After receiving his bachelor's degree he moved to Nottingham University where he obtained his Ph.D. degree for research in electron paramagnetic resonance (EPR) on crystals of copper salts. He joined the academic staff of the Physics Department as a Lecturer, becoming a Senior Lecturer in 1973 and Reader in Experimental Physics in 1977 until 1983 when he moved to Boston.

Initially his research was focused on the EPR of crystals, particularly examining such transition element ions as copper, chromium, nickel, and titanium in a series of host lattices, work of importance in the development of masers and lasers. He made a unique contribution in establishing a highly successful method of thermal detection of EPR in crystals with extreme sensitivity, which was particularly valuable in the detection of magnetic ions strongly coupled to their environment. With two colleagues he demonstrated for the first time magnetic resonance in a rotating magnetic field, and he developed a number of microwave devices, several of which were patented.

Bill was an outstanding experimental physicist with a genius for devising the simplest, most elegant means of making physical measurements using novel concepts. He could see through difficult mathematical descriptions to the essential physics and devise economic equipment which really worked. He had the exceptional gift of "green fingers" in the laboratory.

It was not therefore surprising that after hearing a lecture by Professor Paul Lauterbur on imaging by NMR at a conference in Bombay in January 1974, he and Dr. Waldo Hinshaw quickly devised an alternative procedure which Waldo implemented successfully within a few weeks of returning home to Nottingham. This new subject suited Bill down to the ground. He made contributions to the physical methods, to the equipment design, to the engineering and the computing of the systems, and over the next ten years he made a series of outstanding



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contributions with his colleagues at Nottingham: the first NMR images of the human hand and arm, the first clinically useful images of the human brain, the first sagittal and coronal images. This work attracted much attention in the medical world and was a great stimulus to the commercial development of NMR imaging. During the past five years he was in demand as a lecturer on this new medical imaging modality and was the New Horizons Lecturer at the 1980 RSNA meeting in Dallas. He was the current president of the Society for Magnetic Resonance Imaging, was a member of the editorial board of *Magnetic Resonance in Medicine*, and was a consultant of several large companies. He had published over seventy scientific papers.

Bill Moore was a friendly, kindly man who will be sorely missed by his many colleagues and friends. He had wide interests outside his scientific work. He was a fine amateur musician, primarily as a pianist. For many years he had carried out voluntary work on behalf of handicapped children. He was fond of his native Scotland, its poetry and music, and made a fine sight in his kilt at his annual Hogmanay party. We extend our sympathy to his widow Caryl and their children.

E. R. ANDREW