

Frank Smith Obituary



Frank died suddenly on May 27 in Aberdeen. Frank was Clinical Director at Medserena Upright MRI UK, Clinical Professor of Radiology at the University of Aberdeen, and professor of Health & Sport Science at the Robert Gordon University. Frank was the inaugural President of the Society of Magnetic Resonance Imaging (ISMRM) and in 1990 received their gold medal. Between 1984 and 1991, he was Editor in Chief of Magnetic Resonance Imaging. In 1999, he was the recipient of the Barclay medal and in 2009 was the Sir Godfrey Hounsfield Memorial lecturer for the British Institute of Radiology.

On behalf of *JMRI* and the entire MRI community, we extend our deep condolences to Frank's family, including his loving wife Pamela, and his beloved children Jane and James and their families.

Frank was brought up in Zimbabwe, where his father was also a radiologist. He obtained his medical training at the University of Aberdeen, graduating in 1970. After residencies in medicine, orthopedic surgery, renal medicine and radiology training, he undertook a fellowship at the Hospital for Sick Children in Toronto, Canada. He returned to Aberdeen in 1980 and was appointed as a Consultant in Nuclear Medicine. Working closely with medical physicists, he pioneered the clinical application of magnetic resonance imaging (MRI) developed by Professor John Mallard's Medical Physics Department at the University of Aberdeen. Frank started the world's first clinical trial of MRI in 1980 and the world's first diagnostic MRI service at Aberdeen Royal Infirmary in 1981. For the next decade, he worked with a number of clinicians exploring the potential of MRI in the abdomen and pelvis as well as in pregnancy. He published the first clinical applications of MRI in many diseases including musculoskeletal radiology, head and neck malignancy, liver and pancreatic disease, pelvic malignancy, and pregnancy. He has over 250 publications in peer-reviewed journals, 32 book chapters, and co-authored 5 textbooks.

Frank was known worldwide as an expert in MRI and rightly so. Remembering Frank, Beverly MacLennan a long-time colleague of his recalled "I remember an occasion when, on planning a sequence on a patient, the acquisition time was longer than we felt the patient could

tolerate, Prof Smith then told me to change a number of parameters and provided an estimated new acquisition time, he was correct within 20 seconds.” He was unafraid to try new techniques and push the boundaries of the techniques with which he was involved. He had no fear of failure and he worked tirelessly to advance his specialty. But perhaps most importantly his patients loved him for the care he took over their examinations and his excellent communication.

Frank's care for his patients was only matched by his generosity with his time and knowledge when training and mentoring others. Professor “Nicks” Kumaravel, professor of Radiology and Orthopedic Surgery at University of Texas Health Science Center at Houston recalls Frank's visits to RSNA, “When I was a radiology registrar, Frank would feed us (a bunch of registrars from the UK) on the Monday of every RSNA; eventually, for the last 20-plus years I have been attending RSNA in Chicago, Monday evenings are ‘Frank Smith dinners.’ After I moved to the US, I continued this tradition of meeting him and taking him out to dinner for as long as he came to the RSNA. The sessions were spent both in intellectual MRI discussions and, more importantly, life lessons. I cherish those moments.”

Not content with being an expert in MRI, Frank pioneered the application of single-photon emission tomography (SPECT) for the measurement of regional cerebral blood flow, performing the preclinical evaluation of the technetium labeled blood flow agent hexamethylpropylene amine oxime (HMPAO), as well as publishing the earliest papers on its value in the assessment of patients with dementia. He performed some of the earliest work on the use of positron emission tomography (PET) for the diagnosis and staging of malignant disease.

In addition to being a Consultant Radiologist specializing in Musculoskeletal Radiology, Frank was a great advocate of imaging in Sports Medicine. From 1996 to 2018, he was a visiting professor and external examiner for the Diploma in Sport & Exercise Medicine of the Faculty of Sport and Exercise Medicine at the University of the West Indies. However, it was not just in the warm climate of the West Indies that Frank's association with sport could be found. From 1995 to 2015, he was one of two club doctors for Dundee United Football Club and also ran a Sports Medicine practice in Aberdeen, catering to all sportsmen and women.

Professor Alison Murray, Professor Emerita of Radiology at the University of Aberdeen recalls, “As a radiology trainee in Aberdeen I often ended up covering Nuclear Medicine during Frank's summer holidays while he went to the States. I would complain about the duration, not realising for a moment that he was an MRI superstar on tour.”