Barry Davis Fletcher, MDCM (1935–2018)

Sue C. Kaste¹

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On May 17, 2018, pediatric radiology lost one of the seminal clinical imaging researchers of the era. Barry Davis Fletcher, MDCM, died after a brief illness at age 82 in Asheville, NC. Barry is survived by his wife, Heather; his children, Christopher, Mark and Jennifer; three grandchildren,

Gabriel, Stella and Julien; and his sister, Nancy Rhoadarmer (John). Barry was born and raised in a small community (population 3,000) in southern Ontario, Canada. His introduction to medicine began early — his father was a beloved general practitioner and his mother was a nurse.

After graduating from medical school at McGill University in Montreal, he completed an internship and radiology residency at the Royal Victoria Hospital under Robert Fraser of Fraser and Paré fame. At the invitation of Russell Morgan, MD, Barry spent nearly the next 4 years at The Johns Hopkins Hospital in Baltimore as resident, fellow and junior faculty member. He credited his “truly great experience” of working with Olga Gatewood and John Dorst as the reason he became a pediatric radiologist.

Barry considered his post-training career to have been divided into three phases. First was his time at the Montreal Children’s Hospital (1969–1976), where his research focused on neonatal lung disease and where he enjoyed a fruitful collaboration with pediatrician Mary Ellen Avery. Barry’s 1970 paper may well be the first description of pulmonary interstitial emphysema — an entity now well-known to pediatric radiologists and pediatricians alike.

The second phase of his odyssey evolved while at Rainbow Babies and Children’s Hospital in Cleveland (1976–1987), where he was director of the Division of Pediatric Radiology and professor of radiology and pediatrics at Case Western Reserve University. His forte in the 1980s was pediatric congenital heart disease. During this period, he developed an interest in MR imaging, and by 1987 he had published 13 scientific papers on the subject, before most of us had even performed body MRI on any child. His investigations concentrated on two areas: cardiac MR and musculoskeletal applications. As he had done in Montreal, Barry continued publishing firsts, including some of the first cardiac MR images of congenital heart disease in collaboration with pediatric cardiology. These were delineated in his 1988 book, *Magnetic Resonance Imaging of Congenital Heart Disease: Anatomic, Angiographic, and Echocardiographic Correlations*. He also tackled the interpretation of MR coronary angiograms, a formidable undertaking at that time. Following his inquisitive

✉ Sue C. Kaste
Sue.Kaste@stjude.org

¹ Department of Diagnostic Imaging,
St. Jude Children’s Research Hospital,
262 Danny Thomas Place, MSN 220
Memphis, TN 38105-3678, USA

nature, he explored the utility of MR in the detection of neuroblastoma metastases and he published the first MR description of osteomyelitis in collaboration with orthopedists there.

The third phase of Barry's esteemed career began when he moved to St. Jude Children's Research Hospital in Memphis, TN. As chair of Diagnostic Imaging, he succeeded in building an outstanding pediatric oncological imaging department that continues to push the technological envelope in childhood cancer. His commitment to pediatric imaging research flourished in this setting. He was awarded an ALSAC (American Lebanese Syrian Associated Charities) endowed chair in 1996, the first of its kind, directing portions of the award to help support the purchase of software that became the foundation of my own clinical research in skeletal toxicities. Always a prolific writer, Barry published profusely while at St. Jude — describing characteristics of unusual tumors, probing the utility of MR in disease staging and treatment monitoring, and even exploring the utility of ^{201}Tl imaging in pediatric Hodgkin disease and osteosarcoma. He left an indelible mark on the use of MR imaging for oncological musculoskeletal tumors.

Barry considered two projects at St. Jude to be of particular significance: the MR appearance of bone marrow in children receiving granulocyte colony stimulating factor (GCSF) and the work on dynamic-enhanced MRI. He humbly described these studies as “mainly descriptive efforts, which, after all is what radiologists are all about.” He followed with, “I like to think that I was also capable of doing analytic investigations on occasion.” His receipt of six extramural grants as principal investigator and four as co-investigator speak to his analytical capabilities. He was always a proponent of education and intellectual exploration, exemplified by his support of the start-up process of many studies by his St. Jude recruits. Some of these include dynamic-enhanced MRI and MR autosegmentation techniques, the development of functional neuroimaging, and research into MR diffusion tensor imaging.

During his career, Barry held multiple positions in the Society for Pediatric Radiology (SPR), was active nationally as an American Board of Radiology (ABR) and certificate of added qualification (CAQ) examiner in pediatric radiology and served on many imaging and oncology journal editorial boards, including *Pediatric Radiology*. He was a fellow of the American College of Radiology (ACR), member of the Caffey Society and the Children's Cancer Study Group, and subsequently chair of imaging of the Pediatric Oncology Group, and he was a member and principal investigator with Radiology Diagnostic Oncology Group (RDOG). In 2008, the SPR awarded him its highest honor — the Gold Medal. This was followed in 2013 with the SPR's Pioneer Award. As

described then by Dr. Tom Slovis: “Barry is truly a renaissance pediatric radiologist who has achieved the highest levels in research, education, leadership and contribution to our Society.” To me, Barry embodied the personal characteristics of someone who well deserved the SPR Gold Medal.

After 12 years at St. Jude, Barry “retired” and worked on the 10th edition of *Caffey's Pediatric Diagnostic Imaging* while also enjoying brief consulting positions at St. Jude, Duke University Medical Center, and the Hospital for Sick Children in Toronto. His 3-year association with Project Hope China as a volunteer consultant at Shanghai Children's Medical Center left a lasting mark on radiologists there and was the source of enduring friendships. As an active volunteer at home in Asheville, he worked with an acquired immune deficiency syndrome (AIDS) project, served on the Gold Medal Council of Mission Children's Hospital and on the boards of a local fire department and a chamber music organization, and devoted time to clean-ups of the nearby Blue Ridge Parkway.

The picture of Barry would be incomplete without highlighting his love of life, always shared with his wife, Heather, whom he aptly described as the “wind beneath my wings.” A freelance medical writer of her own repute and a skilled artist, Heather shared Barry's zest for traveling the globe and outdoor activities for 40 years. He was a superb radiologist with music in his soul — adept at playing the saxophone, clarinet and piano. When his first grandchild expressed interest in music he was thrilled. He kept fit swimming and skiing, and he adored hiking the mountains of western North Carolina, collecting friends along the trails with his winning smile and gentle manner. His passion for living life to the fullest is epitomized by Heather's description of his “millennial surprise.” In 2000, Barry underwent a three-vessel coronary artery bypass graft. She relates that his first words upon awakening from anesthesia were: “I guess I'm not going to make it to Everest now.” Ten years later, at age 75, Barry accomplished this lifetime wish, trekking to Mt. Everest base camp without even needing supplemental oxygen!

Barry was a superb teacher and possessed a talent for identifying imaging patterns, assimilating these findings with clinical information while drawing upon his prodigious knowledge and then arriving at a succinct and targeted differential diagnosis. The pediatric patient was always his focus and nurturing the careers of the next generation of researchers and imagers was his passion. His quiet pensive demeanor often masked his sense of humor and the intensity of his dedication. His love for and of life was unmatched. I can attest to the impact Barry had on many, having been fortunate enough to consider him a valuable mentor and friend for 27 years.