Advancing Medical Imaging

RAYMOND A. SCHULZ
MS ’75 ELECTRICAL ENGINEERING
SENIOR PRODUCT MANAGER,
VARIAN MEDICAL SYSTEMS

It’s hard to talk to Raymond Schulz and not notice how often he uses the word “fun”—to describe his career, his outside interests, the way he approaches life. A self-described “outgoing guy who loves to get up on stage,” Schulz has spent his entire career advancing medical imaging, first as a software developer and more recently as a medical marketing executive and technical marketer, along the way authoring or co-authoring nearly 200 papers, chapters, and books.

Schulz came to Columbia in 1972 as a medical physicist with an undergraduate degree in physics and an interest in developing non-invasive ways to study the human body. After doing early imaging research at Sloan-Kettering Institute for Cancer Research, he jumped into the nascent field of computerized tomography, or CT scanning, at the Columbia Medical Center’s Neurological Institute of New York. During one heady two-year period, he used early minicomputers to help make revolutionary strides in the speed and quality of whole-body scanning.

Schulz continued his passion for learning and staying ahead of the curve by launching himself headlong into nascent fields every decade or so—from CT in the 1970s, to magnetic resonance imaging (MRI) in the 1980s, to digital holography in the 1990s. As part of the Surgical Sciences Group at Varian Medical Systems in Palo Alto, Calif., Schulz currently works with institutions around the world, including Memorial Sloan-Kettering Cancer Center where he started, to advance techniques in radiosurgery—a method of treating tumors with high doses of radiation, guided into small places with three-dimensional imagery, over one to five sessions.

Part of his enthusiasm for his life-saving work comes from a more general enthusiasm for life, something he credits to his father, Helmut W. Schulz. The elder Schulz, a highly respected professor of chemical engineering at Columbia and the 2004 Egleston Medal recipient, lost his sight at age 28 in a lab accident, but never let that hold him back. “Dad taught us not to be afraid to open our arms to new ideas,” said Schulz.

As an engineer, that philosophy has driven Schulz to open his arms to new ideas and to push the boundaries of what it means to be an engineer by becoming a leader in a field dominated by clinicians and physicists. “I think it’s important to be more than just an engineer,” said Schulz. “You have to be a whole person and not restrict yourself.”