

IN MEMORIAM

James C. Wyant

1943–2023

James C. Wyant, a leader, engineer, entrepreneur and philanthropist in optics, died on 8 December 2023 at the age of 80, after being diagnosed with amyotrophic lateral sclerosis in early 2022.

Born in 1943 and raised on an Ohio farm, Jim developed a strong work ethic early in life after his father died in a farming accident when Jim was only five. He became fascinated with optics upon seeing lasers and holograms in his senior year at what is now Case Western Reserve University (CWRU), and he pursued this interest at the University of Rochester's Institute of Optics, completing his Ph.D. studies under M. Parker Givens.

Jim joined Itek Corp. in 1968 to work for Robert R. Shannon. "Jim immediately became involved in the testing of some of Itek's special optical products," developing holographic nulling techniques for complex aspheres, starting a lab for new optical test methods and devising wavefront sensors for some of Itek's early adaptive-optics systems, Shannon recalls. "This industrial experience" he adds, "served as a good basis for the development of his teaching and research programs as he moved into academic life at the University of Arizona."

As a professor in the university's Optical Sciences Center (OSC), Jim's research in interferometry flourished, and he became an outstanding mentor, graduating 34 Ph.D. and 25 master's students. His subsequent leadership as OSC director, and then as founding dean when OSC became a college of the university, brought tremendous growth in faculty, students, research and facilities. Jim also volunteered his leadership skills to professional societies, serving as president of both SPIE and OSA.

Jim's major awards, numbering more a dozen, included election to the National Academy of Engineering and the National Academy of Inventors, SPIE's Gold Medal and Visionary Award, and Optica's Frederic Ives Medal/Jarus W. Quinn Prize and Joseph Fraunhofer Award. In August 2023, he was named an Optica Honorary Member. Jim was also proud to have been knighted "James of Arizona" in the elite International Order of Holoknights.

A tinkerer at heart, Jim recounted how much he enjoyed reaching individuals around the globe by bouncing ham radio signals off the moon. He was also excited by business success from an early age, founding volume businesses selling bales of hay and raising 28,000 chickens per year on his farm as a high school student.

"Jim Wyant was born an entrepreneur," notes John Hayes, one of Jim's Ph.D. students and cofounder of 4D Technology. "He loved to make money and he was driven to produce the best products possible. He was a competitor, and nothing said success like growing sales."



J. Chinn / UA Alumni Assoc.

In 1982, for example, Jim and several University of Arizona students started WYKO Corporation, a venture focused on IBM's need for surface profiling of magnetic tape heads. "Jim led WYKO's growth for 15 years before it was sold to Veeco Corporation," Hayes says. "In 2001, Jim helped to bring another metrology startup to Tucson, forming 4D Technology Corporation to create innovative vibration-insensitive interferometry products, and served on the board until its sale in 2018 to Nanometrics." 4D Technology's recent enabling role in fabrication and testing of the James Webb Space Telescope highlights its continued impact.

These business ventures left Jim in a very strong financial position. But he maintained his previous lifestyle and instead used his resources to support the success of others. The large endowments by Jim and his family have been transformative for the optics community, creating dozens of new faculty positions at OSC and the Institute of Optics, supporting scores of first-year Ph.D. students each year at OSC, and underwriting major initiatives at CWRU. In recognition of his impact, all three institutions conferred Honorary Doctorates on Jim, and OSC was renamed the James C. Wyant College of Optical Sciences.

Those fortunate enough to have known Jim will remember him as a supportive and generous individual, an insightful, inspirational and focused leader, and a good friend to optics and photonics.

*Thomas L. Koch
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If you would like to make a memorial donation to the Optica Foundation in James C. Wyant's honor, please visit optica.org/foundation.