Advancing Automation

Charles Hawker '62 is honored for pioneering work in clinical science.

Called a “true ambassador in the field of clinical science,” Charles D. Hawker ’62 was presented the Diploma of Honor by the Association of Clinical Scientists (ACS) at its annual meeting this past spring. First awarded in 1957, the diploma recognizes scientists who have made “sustained, salient and meritorious contributions to clinical science and its professional advancement.”

“Dr. Hawker has dedicated much of his career to promoting and advancing our profession,” says Magali Fontaine, president of ACS, a nonprofit group that promotes education, research and professional development in clinical science. Charles is a past president, executive committee member and current secretary of ACS and also past president of the National Academy of Clinical Biochemistry (NACB). He also received the John V. Bergen award from the Clinical and Laboratory Standards Institute, the Professor Alvin Dubin award from the NACB and the Becton Dickinson award from the Association for Laboratory Automation.

“I was truly honored to receive the Diploma of Honor from the association,” says Charles. “The ACS is more than 60 years old and is one of the most prestigious laboratory associations in the country. I have genuinely enjoyed participating in its meetings and governance over the past 36 years.”

Charles is scientific director of automation and special projects at ARUP Laboratories at the University of Utah in Salt Lake City, where he has been for 20 years. A leading national clinical and anatomic pathology reference laboratory, ARUP has more than 3,000 employees and offers more than 3,000 tests, from routine medical screenings to highly complex molecular and genetic assays. His work investigating and developing new automation systems and technologies has helped make ARUP one of the most automated clinical laboratories in North America. Those systems include an automated transport and sorting system that can handle 5,000 specimens per hour, a two-story robotic freezer storage system that holds more than 2.3 million specimens and the world’s first automated thawing and mixing workcell. Prior to working at ARUP, he held various management positions over a 20-year span with SmithKline Beecham Clinical Labs in St. Louis and the Laboratory Procedures Division of the Upjohn Co. in Kalamazoo, Mich.
Charles’ early career was as a research scientist. He developed several new laboratory tests widely used in the diagnosis of various diseases. In the 1980s he transitioned into laboratory automation because of its value in improving the quality and efficiency of laboratory testing. His current research is focused on the development of an automated camera system for identifying mislabeled patient specimens. His work has been shared in 40 peer-reviewed papers and he is the author or co-author of four book chapters on clinical laboratory automation. A frequent lecturer at national and international conferences, he is also an adjunct professor of pathology at the University of Utah’s School of Medicine.

Originally from St. Louis, Charles was inducted into his high school’s inaugural Wall of Fame this October. At Illinois Wesleyan, Charles majored in chemistry, served as president of Blue Key and was a member of Sigma Chi, Student Senate and the varsity tennis and swimming teams. About his education at IWU, Charles notes that “it provided a very strong foundation for my subsequent education and career advancement.” He received his Ph.D. in biochemistry from the University of Pennsylvania and an M.B.A. from Washington University in St. Louis. He lives in Salt Lake City with his wife, Patti.