



Cancer Center Director: Collaboration Key to New Cancer Breakthroughs

“NOW MORE THAN EVER there’s a realization that the best possible cancer research is not done in a vacuum,” said Stephen D. Williams, M.D., director of the IU Simon Cancer Center and HH Gregg Professor of Oncology with the IU School of Medicine. The center is one of 64 National Cancer Institute-designated cancer centers in the country, and one of two in Indiana.

The NCI designation places the IU Simon Cancer Center in an elite group of research centers across the country that focuses on the rapid translation of research discoveries to directly benefit people with cancer. It is the only NCI-designated cancer center in Indiana that provides patient care and performs basic research. (The Purdue Cancer Center is an NCI-designated cancer center that provides basic research only.)

“This recognition by the NCI stands as a testimony to the talented researchers and physicians here who conduct cutting-edge cancer research and translate these findings to patients and those at risk of cancer,” Williams said. “We now think about team science – teams of investigators who work together toward a common problem. Never before have we had such a strong collaborative relationship with our colleagues at Purdue. A decade ago people just didn’t think that way.”

Williams said the center has many members at IU Bloomington and is developing relationships with Notre Dame also. “We have a statewide group that’s committed to cancer research.

“The scientific knowledge that’s available to us now is so complex, so vast and so important that a single investigator working in isolation in his or her laboratory is unlikely to make progress. Groups of investigators are far more likely to be successful. So now we have a number of working groups formed because of common interests and collaborations, and they work toward a common problem.”

One example of this collaboration is a large project with a number of investigators at Purdue University called cancer care engineering. “Our initial focus is on colon cancer,” Williams said, “but this has implications for other cancers also. We’re applying the principles of systems engineering -- which our colleagues at Purdue excel in -- to the process by which we understand the biology of colon cancer and by which we deliver care to people with known or suspected colon cancer.”

He said the project involves 30 or 40 investigators in multiple disciplines in West Lafayette and Indianapolis, and spans the gamut from basic research using highly sophisticated modern technologies to develop biomarkers for colon cancer to the way care is delivered to patients with known or at risk colon cancer.

“It’s an all-encompassing project funded by the Department of Defense,” Williams said. “We’ll be continuing for the foreseeable future, and when it’s successfully culminated

we’re going to know a lot more about how to predict the highest-risk patients versus people who are at very low risk, how we can diagnose it early and how we can deliver care for screening, prevention and treatment of colon cancer. It’s very exciting.

“We have recently established a pancreatic cancer working group. It’s a spectrum of people who have multiple scientific interests and includes physicians who take care of the patients.”

Another area of study at the Simon Cancer Center that is having immediate patient implications is its pharmacogenetic program. Scientists now know that the individual makeup may have profound implications for the way an individual may respond to drug treatment.

“The drug tamoxifen has been used for breast cancer treatment and prevention for more than two decades,” Williams said. “Hundreds of thousands of women have received this drug. Some would benefit from it and some wouldn’t. We now have a much better idea of why that is. Some women have a change in a specific gene that alters the way they metabolize the drug.

“Another change is that academic institutions are more aware of the economic implications of what we do. We’re very interested in collaborating with commercial entities, and our people are much more tuned into the possibility of developing things. We know that a group of people at a university can’t do something that’s going to immediately impact large numbers of patients, that we need private commercial partners to help us move these things along and work together toward developing products that can actually help people. We have a much stronger sense of partnership, and that’s why the summit is very important.”

The IU Simon Cancer Center created and implemented ITRAC (Indiana University Melvin and Bren Simon Cancer Center Translational Research Acceleration Collaboration), a planning and funding process that can facilitate the development of new cancer diagnostics and therapies from the laboratory to the bedside and back, Williams said. Overall, ITRAC aims to support development of innovative and improved treatments to better detect, treat and, ultimately, cure cancer. The process served as a template for the newly created Indiana Clinical and Translational Sciences Institute (CTSI), a medical research initiative that combines the strengths of IU and Purdue universities, business and government to swiftly transform discoveries into better patient care and business opportunities. ■

Dr. Stephen D. Williams, who had been director of the Melvin and Bren Simon Cancer Center since it was established in 1992, succumbed to cancer on Sunday, Feb. 15, 2009. Dr. Williams is remembered as a pioneer in the war on cancer, a great researcher, an inspirational leader, and a caring physician.