

Cancer Forum Features Noted Specialist



John Kanzius and Dr. Steven A. Curley

by Jim George

Noted cancer specialist and researcher Dr. Steven Curley was in Fort Myers this week to highlight a new, and potentially breakthrough, treatment for cancer. Curley, a professor of surgery and chief of gastrointestinal tumor surgery at the University of Texas MD Anderson Cancer Center, is testing a new radio frequency technology that is noninvasive and virtually free of side effects. He described it as “one of the most exciting developments in years.”

The forum attracted business leaders and both print and television media, a satisfying result for the forum sponsor, Vincent Wolanin, and the inventor of the technology, John Kanzius, both Sanibel residents. Wolanin, chairman of PrivateSky Aviation, is trying to raise funds for cancer research and Kanzius’ technology is in the early stage of development and has attracted the attention of researchers around the country. Kanzius’ machine directs radio waves at cancer cells that are identified and marked by a proprietary technology; the radio waves target and then heat the cancer cell to a temperature of 106 degrees which destroys the cell membrane therefore killing the cancer cell. When the cancer cell dies it is carried out of the body. Healthy cells are not harmed.

Presently there are three other cancer treatment options available – radio frequency ablation, chemotherapy and radiation, but they all have drawbacks. Radio frequency ablation is invasive; chemotherapy is non invasive but toxic since basically a poison is introduced into the body; and radiation therapy causes collateral damage when other cells in the path of the radiation are damaged. Kanzius’ process is noninvasive, leaves

no collateral damage and has no side effects that are known of right now. That’s a huge benefit.

Wolanin is no stranger to fundraising. He is the creator of the Rockin’ Christmas Party, a charitable fundraising event of the permanently endowed Rockin’ Christmas Fund, which over the past three years has raised over \$500,000 for scholarships, The Children’s Hospital and the YMCA. His 2005 Rockin’ Christmas Party will be for cancer research. Wolanin wants to highlight the need to fund cancer research and is appealing to businesses to support the fundraising through sponsorship of his Rockin’ Christmas Party.

The original research for Kanzius’ technology began late last year at the University of Pittsburg Medical Center, by world renowned cancer specialist, Dr. David Geller, who is presently conducting small animal testing.

Kanzius’ technology has also attracted the attention of a Nobel Prize-winning researcher, Dr. Richard Smalley of Rice University in Texas whose research concentrates on single-walled carbon nano-tubes, tiny molecules that have the conductivity of copper and are very strong. Smalley received his Nobel Prize for the discovery of the nano-tubes.

Curley believes that they can attach nano-tubes to cancer cells, essentially “marking” or identifying the rogue cell and then direct radio waves to destroy it. A specialist in liver cancer, Curley said that less than three percent of patients with liver cancer survive. “We have to have a better way,” he said. “Although we have been using radio frequency ablation for years, it requires invading the body and the results have been less than favorable. In addition, we can only treat small tumors with it. This new technology offers new hope.” Curley stopped short of calling it a cure because too much research must still be done. “We’re probably two years away from FDA approval for human testing,” he said. Curley said they will begin testing on large animals such as pigs within the next two weeks. The beauty of the machine, he added, is that it is relatively inexpensive when compared to medical equipment such as CT scanners that cost millions of dollars.

Curley said that one of the major benefits of coupling Kanzius’ technology with nano technology is the early detection of cancer. He said many cancers today are not detected until they are too advanced, primarily because they show no symptoms. With the Kanzius technology they would be able to detect cancers before they become lethal.

Kanzius, in brief comments, related his own experience as a cancer victim saying his empathy for others who were suffering was his primary motivation for his invention. Drawing on his many years as a radio engineer and owner of radio and television stations, he developed the machine while he was undergoing debilitating chemotherapy. “We’re out of the design stage and into the real world,” Kanzius said.✱



Vincent Wolanin