UC San Diego Health Researchers Help Launch Second Pancreas Cancer “Dream Team”

New 4-year, $7-million collaborative grant will focus on preventing the deadly disease

Scientists and physicians at Moores Cancer Center at UC San Diego Health, in partnership with colleagues at MD Anderson Cancer Center in Texas, Johns Hopkins University in Maryland and elsewhere, have been awarded a $7 million grant over four years by Stand Up to Cancer (SU2C) to create a “dream team” to develop new ways to prevent pancreatic cancer — one of the nation’s deadliest malignancies.

The grant, sponsored and administered by SU2C, the Lustgarten Foundation and the American Association for Cancer Research, was accepted by Scott Lippman, MD, director of Moores Cancer Center, and his two co-leaders at an international cancer conference in Philadelphia earlier today.

Pancreatic cancer is among the most devastating and lethal of all cancers. It comprises just 3 percent of all cancer cases in the United States — the average lifetime risk of developing it is roughly one in 67 or 1.5 percent, according to the National Cancer Institute — but it is the fourth leading cause of cancer death, after lung, prostate and colon.

More than 53,000 American men and women (evenly split) will be diagnosed this year with pancreatic cancer; more than 43,000 will die from the disease (7 percent of all cancer deaths). For all stages of the disease combined, the 5-year relative survival rate is just 8 percent (a 6 percent increase since 1940).

“Because pancreatic cancer occurs deep within the body, it’s hard to detect early. Doctors can’t see or feel tumors during routine physical exams,” said Lippman. “There is no simple blood test for persons without symptoms. By the time symptoms appear, such as weight loss or abdominal discomfort, the disease has likely progressed and metastasized, which of course makes it deadlier.”
Lippman is co-leader and a principal investigator in the new “Pancreatic Cancer Interception Dream Team.” He is a recognized advocate and leader for developing cancer prevention strategies. Other key members of the team include Anirban Maitra, MBBS, professor of pathology at the University of Texas MD Anderson Cancer Center; Michael G. Goggins, MD, professor of pathology, medicine and oncology at Johns Hopkins University; Elizabeth Jaffee, MD, deputy director of the Sidney Kimmel Comprehensive Cancer Center, also at Johns Hopkins; Bert Vogelstein, MD, director of the Ludwig Center for Cancer Genetics and Therapeutics at Sidney Kimmel; Tyler Jacks, PhD, director of the Koch Institute for Integrative Cancer Research at MIT; Jim Allison, PhD, chair of the Department of Immunology at MD Anderson Cancer Center; Karen E. Nelson, PhD, president of the J. Craig Venter Institute; and J. Craig Venter, PhD, founder, chairman and CEO of the J. Craig Venter Institute.

The grant is the second specifically targeting pancreatic cancer to be awarded to Moores Cancer Center researchers. A first pancreatic cancer “dream team” with Andrew Lowy, MD, and Tannishtha Reya PhD, as members was announced in 2015 with a three-year, $12-million grant. Their goal focuses on finding new ways to treat the disease or render it less lethal.

“The idea is that you can reprogram pancreatic cancer cells to a different state so they can be less aggressive or you can create new vulnerabilities that can be exploited with combination drug therapies,” said Lowy.

Lowy will also be part of the new dream team, focusing on the identification and management of patients at high risk for development of pancreatic cancer.

Lippman said the new grant seeks to find ways of fending off disease before treatment is required. “Before there is cancer, there are often red flags, such as lesions or bits of abnormal tissue. Sometimes these lesions don’t change and remain benignly abnormal. They may even regress. But sometimes they transform into cancer,” he said.

“The best remedy for cancer is to avoid having to treat it at all. That’s what prevention is all about — better understanding cancers before they actually become cancers, before they harm health or threaten life.

“Unfortunately, typical lifestyle changes, such as diet and smoking, have little effect on pancreatic cancer compared to the beneficial effects on other cancer types. Our SU2C dream team is and will be assessing new risk biomarkers and immune interception with cancer vaccines, which hold tremendous promise.”

Lippman’s co-investigator Stephen Schoenberger, PhD, at La Jolla Institute for Allergy and Immunology and an adjunct professor at UC San Diego, will lead efforts to develop personalized cancer prevention vaccines.
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