

Preclinical study finds drug helps against pancreatic cancer

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An investigational drug that disrupts tumor blood vessels shows promise against a rare type of pancreatic cancer, scientists at Albert Einstein College of Medicine of Yeshiva University have found. Their results were presented October 20 during a poster session at an international cancer conference.

The drug Zybrestat selectively targets and collapses [tumor blood vessels](#), depriving the tumor of oxygen and making its cells die. In experiments involving a mouse model of pancreatic neuroendocrine tumors, Einstein scientists found that infusing mice with Zybrestat three times per week for four weeks resulted in significant antitumor activity compared with control mice given a placebo.

The findings were presented in Boston at the American Association for Cancer Research-National Cancer Institute-European Organisation for Research and Treatment of Cancer International Conference on Molecular Targets and Cancer Therapeutics. Presenting for Einstein was ZiQiang Yuan, M.D., research assistant professor of surgery at Einstein. The senior author is Steven K. Libutti, M.D., professor of genetics at Einstein and professor and vice chair of surgery at Einstein and Montefiore Medical Center, the University Hospital and academic medical center for Einstein.

Pancreatic cancer is the fourth-leading cause of cancer death in the U.S. According to the National Cancer Institute, more than 45,000 Americans will be diagnosed with pancreatic cancer in 2013 and more than 38,000 will die of the disease. Exocrine pancreatic cancer, the more common and usually fatal type, begins in the ducts that carry pancreatic juices. The Einstein study involved endocrine [pancreatic cancer](#)—the much less common and more curable form of the disease that originates in pancreatic cells that make hormones (and that caused the death of Apple co-founder Steve Jobs).

All the mice in the study had insulinomas—endocrine tumors that form in [pancreatic cells](#) that make insulin, the hormone that controls glucose levels in the blood. This type of tumor can make the pancreas over-secrete insulin. The Einstein researchers found that treating the mice with Zybrestat caused a significant and sustained decrease in circulating insulin and also significantly reduced tumor size.

Zybrestat has been evaluated in clinical trials involving patients with anaplastic thyroid cancer, a highly aggressive [cancer](#) for which there are no approved treatments. The drug is made by OXiGENE, Inc., a biotech company based in San Francisco, CA.

Dr. Libutti is also director of the Montefiore Einstein Center for Cancer Care and associate director, clinical services at the Albert Einstein Cancer Center. This research was supported in part by OXiGENE, Inc. through a sponsored research agreement with Einstein. The authors report no conflicts of interest.

Provided by Albert Einstein College of Medicine

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