



SAN DIEGO'S NATIONAL CANCER INSTITUTE - DESIGNATED CANCER CENTERS



### **C3 / Pedal the Cause 2013**

“Stromal reprogramming to enhance the effectiveness of pancreatic cancer therapy”

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#### **Abstract:**

In a new scientific study, researchers from the Salk Institute for Biological Studies and UC San Diego Moores Cancer Center suggest a novel strategy to treat pancreatic cancer, the fourth leading cause of cancer death in the United States. Every day, one San Diegan will be diagnosed with pancreatic cancer, yet only 1 in 20 will survive past five years after this diagnosis. Physicians have made impressive strides in treating cancer using “smart-drugs” that are tailored to improving knowledge of the abnormal genes that drive cancer growth and survival. Unfortunately, so far, applying such knowledge to pancreatic cancer has not helped. Researchers believe that the lack in progress is in part due to the fact that pancreatic cancers grow encased in a thick tissue of protective layer called the activated stroma. The stroma acts both as a barrier to drug entry and also provides fuel for cancer cell growth. They hypothesize that drugs that reprogram the stroma to make it more normal will increase the efficacy of cancer cell therapy. Researchers propose to test one “smart-drug” that is already in clinical trials to reprogram the stroma, and a second “smart-drug” to make pancreatic cancer cells and their metastases more sensitive to standard chemotherapy drugs. This innovative outside-in strategy will combat the barriers posed by pancreatic cancer, and could have significant community impact by reducing death and suffering caused by this deadly cancer.