Bankhead-Coley Cancer Research Program

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2007 Program
New Investigtor (3-year project)

Project Title: Inhibition of Pancreatic Cancer Growth and Metastasis by NSAIDs and Derivatives

Project Summary: Pancreatic carcinoma is the fourth leading cause of cancer mortality in the U.S., with more than 28,000 deaths attributed to the disease each year. Considered by many to be one of the deadliest malignancies, pancreatic cancer is associated with a death:incidence ratio of approximately 0.99. The major cause of death from pancreatic cancer is due to metastases, which are extremely resistant to conventional therapies. Due to local invasion and/or metastasis, only 15-20 percent of pancreatic cancer patients qualify for surgical intervention, and chemotherapeutic options for treatment of this disease are limited. Researchers at M. D. Anderson Cancer Center Orlando's Cancer Research Institute are studying the process by which pancreatic cancer cells manipulate the tumor environment, recruit nutrients, and metastasize. For the first time, research has identified a structural class of nonsteroidal anti-inflammatory drugs (NSAIDs) that inhibit pancreatic cancer cell growth. The proposed research will identify the most potent NSAID analogs that inhibit pancreatic cancer cell growth, and these will serve as lead compounds for development of new treatment options. The goal of this research is to rapidly make steady strides toward understanding the biology of pancreatic cancer and investigate potential new treatments for this devastating disease.