



SAN DIEGO'S NATIONAL CANCER INSTITUTE - DESIGNATED CANCER CENTERS



### **C3 / Pedal the Cause 2016**

“The GNAS-PKA Onco-Signaling Network in Colorectal Malignancies”

#### **Principal Investigators:**

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#### **Abstract:**

Every year, more than 135,000 Americans - and 1.35 million people worldwide - are diagnosed with colorectal cancer. With 50,000 deaths each year, colorectal cancer is the second leading cause of cancer deaths in the United States. New approaches are clearly needed to explain the underlying biology of colorectal cancer, which will help the development of new and more effective options to prevent and treat this highly prevalent human malignancy. Aspirin and multiple over the counter non-steroidal anti-inflammatory drugs are effective in preventing colorectal cancer, supporting that chronic inflammation contributes to the development of this cancer. A molecule known as Protein Kinase A (PKA) is often stimulated by inflammatory mediators in the normal intestine and colorectal tumors. Through PEDAL15 funding, scientists will be able to study what causes the unrestrained activation of PKA in colorectal cancer and how PKA then stimulates cancer growth. It is believed that these studies will increase our understanding of colorectal cancer initiation and progression, will help identify patients at risk of developing this malignancy, and will reveal new therapies to prevent and treat this disease.