

C3 / Pedal the Cause 2016

"KRAS Addiction and Protein Biomarkers of Response to Anti-KRAS Therapy in NSCLC Patient-derived Xenografts"

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Abstract:

In approximately 25 percent of lung cancer cases, the gene KRAS may be mutated. Therapies for patients who have a KRAS mutation are not currently approved by the United States Food and Drug Administration. This challenge remains a largely unmet need among lung cancer patients. Every year an estimated 39,000 people will die of this molecular form of the disease. In this PEDAL-funded project, scientists will study proteins that are expressed in these tumors and seek to identify additional markers that may be used to determine who will respond to novel KRAS-directed therapies. Additionally, the funding will also facilitate the study of new drug therapies developed to target the KRAS protein complex and test its efficacy in KRAS-mutated and pathway dependent cancer cells. This groundbreaking research could serve the basis of a future clinical trial to evaluate a new anti-KRAS drug for patients with KRAS mutations and pathway dependency.