LUNG CANCER RESEARCH FOUNDATION

RESEARCH GRANT PROJECT UPDATE • July 2024

Antibody Drug Conjugates

grant

2023 LCRF–Daiichi Sankyo–AstraZeneca Research Grant on Antibody Drug Conjugates

project

Pulmonary high-grade neuroendocrine carcinomas as indications for ADCs targeting TROP2 and HER2

awardee

Carl Gay, MD, PhD
MD Anderson Cancer Center
Houston, TX

overview

Small cell and large cell neuroendocrine lung cancers are very aggressive forms of lung cancer. The standard of care treatment for these cancers is chemotherapy combined with immunotherapy. There is a lot of interest in identifying targets on the cancer cells that could direct new treatment approaches. Two such biomarkers are HER2 and TROP2. Antibody drug conjugates (ADCs) are novel agents that target proteins such as HER2 and TROP2 on the cancer cell and deliver a chemotherapy payload directly to the cancer. HER2 and TROP2 ADCs are currently available. Dr. Gay is trying to characterize these 2 targets on small cell and large cell neuroendocrine cancer cells.

update

Dr. Gay has found that these two targets may be more prominent after treatment with chemotherapy. He is transitioning his work to using live tumor-bearing mice.

impact

If ADCs demonstrate effectiveness in mouse tumor models, this breakthrough could swiftly progress to patient clinical trials. With a critical need for new, effective treatments, this research holds the potential to revolutionize clinical practice and offer renewed hope to patients.