Michael F. Price Memorial Grant from DeGregorio Family Foundation Awarded to Improve Survival Rates in Esophageal Cancer

NEW YORK, March 7, 2023 – The DeGregorio Family Foundation with the support of the Esophageal Cancer Awareness Association has awarded $75,000 to R. Taylor Ripley, MD, Associate Professor at the Michael E. DeBakey Department of Surgery at Baylor College of Medicine. The Grant is named in memory of Michael F. Price, the noted value investor and philanthropist, who was an early supporter of the Foundation. Dr. Ripley, along with Yuan Xu, MD, PhD, Instructor at Baylor College of Medicine, will evaluate whether the generation of “patient-derived explants” in which a tumor is directly removed during surgery and grown in the lab for three days will provide a model to test novel therapeutics. The ultimate goal is to rapidly determine the best approach for treating each individual patient with esophageal cancer. Depending on results, this grant funding could increase.

Resistance to apoptosis – cell death – is a well-established hallmark of cancer, yet Dr. Ripley notes a critical gap in knowledge of biological processes that enable resistance to cancer therapy in esophageal adenocarcinoma. He and his team have reported that esophageal tumors resisted cancer cell death through an anti-apoptotic protein that is part of the mitochondria – small structures in a cell that make most of the energy. The protein is called Myeloid Leukemia Cell-1v (Mcl-1). When they targeted Mcl-1 with drugs called BH3 mimetics, apoptosis increased five-fold when combined with chemotherapy.

Their central hypothesis is that treatment resistance is mediated by the mitochondria and BH3 profiling acts as live-cell measurement to predict which mitochondrial proteins to target. In this phase of the research, they will establish a patient-derived explant model to test whether targeting Mcl-1 in esophageal adenocarcinoma provides a therapeutic window by affecting the tumor to a greater extent than normal tissue.

Said Dr. Ripley, “We very much appreciate the support of the DeGregorio Family Foundation.”

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- Dr. R. Taylor Ripley
In 2020, gastric and esophageal cancers combined killed over 1.3 million people worldwide. Patients continue to face poor prognoses following gastroesophageal cancer diagnoses due to their chemo-resistant behavior and ability to metastasize.

The DeGregorio Family Foundation, founded in 2006 after a 10th member of the DeGregorio family died of stomach cancer, has raised almost $8 million to fund innovative research focused on curing gastroesophageal cancers. “Esophageal adenocarcinoma is the most common subtype of esophageal cancer in the U.S., and it is one of the fastest-growing cancers today,” concluded Lynn DeGregorio, President and Founder. “We salute Dr. Ripley and his team for their pioneering research.”

The DeGregorio Family Foundation funds innovative research focused on curing gastric and esophageal cancers—click here to donate and...

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