Grant Awarded to Explore Hopeful New Treatment Strategies for Gastric and Esophageal Cancers

(NEW YORK, March 2, 2021) – The DeGregorio Family Foundation, with funding support from the Price Family Foundation and the Esophageal Cancer Awareness Association, has awarded $200,000 to Dr. Nilay Sethi, Principal Investigator at Dana-Farber Cancer Institute.

Dr. Sethi is a physician-scientist who seeks to generate opportunities for impactful translational advances. His passion for investigative research is fundamentally dependent upon its power to generate a deeper understanding of human disease and in turn to ultimately improve patient care by developing new strategies to prevent and treat cancer.

This grant will enable the Sethi Lab to leverage data from patients, mouse models and cell culture studies so as to provide an integrated understanding of early events in gastrointestinal cancers with the ultimate hope that the knowledge gained will inspire new avenues for cancer prevention and treatment.

In 2020, gastric and esophageal cancers combined to kill over 1.3 million people worldwide—making it the second-leading cause of cancer-related deaths. Patients continue to face poor prognoses following gastric and esophageal cancer diagnoses due to their chemo-resistant behavior and ability to metastasize.

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-Dr. Nilay Sethi

Dr. Sethi and his team will aim to learn how early genetic mistakes engage environmental exposures during the initiation of these cancers. Their newest mouse model integrates early genetic alterations with disease-relevant dietary carcinogens, revealing that the combination accelerates the development of pre-cancerous lesions in the stomach. By studying this model,
they defined specific additional genome alterations that are selected for during pre-cancer progression. While these genome alterations help spur malignant progression, they also expose vulnerabilities that can be therapeutically targeted. Specifically, they learned that blocking the DNA damage response pathway may have treatment potential in gastric cancer.

Dr. Sethi will now build on these important findings by determining the therapeutic efficacy of DNA damage response inhibitors in human disease. They will first focus on understanding how the DNA damage response varies in human gastric specimens—evaluating normal, precancerous and malignant lesions from the same patient. They will then seek to identify the specific subtype of gastric cancer that will best respond to DNA damage response inhibitors. Using strong preclinical models, they aim to determine the therapeutic potential of DNA damage response inhibitors in gastric cancer.

The DeGregorio Family Foundation, founded in 2006 after a 10th member of the DeGregorio family died of stomach cancer, has raised close to $4 million to fund innovative research focused on curing gastric and esophageal cancers. Lynn DeGregorio, President and Founder, stated, “We are proud of our accomplishments and thankful for all of the support that we have received. These diseases are very challenging as they present with poor prognoses—a lot more work needs to be done in order to shift this paradigm.”

Commenting on his award, Dr. Sethi said, “Our lab is grateful for receiving grant support from the DeGregorio Family Foundation. The funding will directly guide research efforts towards understanding the potential for a new class of therapeutics yet to enter the gastric and esophageal cancer treatment space. By pursuing translational research rooted in rigorous basic science investigation, we hope to generate key data that will lay the foundation for the next generation of gastric and esophageal cancer therapeutics.”

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

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