

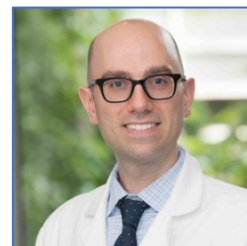
\$1 Million Awarded by DeGregorio Family Foundation to Improve Immunotherapy in Gastroesophageal Cancer

NEW YORK, May 6, 2025 –[The DeGregorio Family Foundation](#) with support from the Torrey Coast Foundation has awarded \$450,000 to Eric Smith, MD, PhD, and Andrew Aguirre, MD, PhD, both of Dana-Farber Cancer Institute, and Sam Klempner, MD, Massachusetts General Hospital, to complete their 2022 grant for \$1 million. The team's objective is to improve immunotherapy in gastroesophageal cancer by accelerating the development of a novel cellular therapy for translation to the clinic to directly impact patients.

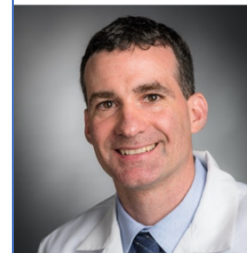
Traditional cytotoxic chemotherapies have mostly proved unsuccessful in treating advanced gastric and esophageal cancers effectively. Immunotherapies, including cellular therapies, hold the potential to search throughout a patient and destroy every last cancer cell. Given the promise of immunotherapies, they are now being explored in a variety of cancer types. One immunotherapy that has shown tremendous results initially in blood cancers is Chimeric Antigen Receptor (CAR) T cell therapy. This therapy involves obtaining immune cells from a patient's blood and genetically engineering these cells with a synthetic gene that "re-educates" them to recognize a target protein (antigen) on cancer cells and to kill cells expressing that antigen. After manufacturing in the lab, the cells are injected back to the patient in an attempt to eradicate the patient's cancer cells.

Ongoing CAR T cell trials in gastric and esophageal adenocarcinomas (GEA), targeting an antigen called CLDN18.2, which is highly expressed in these cancers, have been successful in inducing tumor regression in patients. However, responses are not durable enough and these patients usually relapse. This "proof of concept" clinical trial demonstrated that CAR T cell therapy may be effective in GEA tumors (unique among solid tumors) but needs to be improved. One challenge is the variable expression of CLDN18.2 on tumor cells.

Based on the team's previous work, they screened more than 50 patient samples by multiplex immunofluorescence and found that targeting additional cell surface proteins can address the tumor



Dr. Eric Smith



Dr. Andrew Aguirre



Dr. Sam Klempner



The DeGregorio Family Foundation funding is transformative for our research at this stage.

- Drs. Smith, Aguirre & Klempner

FOR IMMEDIATE RELEASE

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cell plasticity and subsequent heterogeneity of CLDN18.2 expression. Using this data informed the development of next-generation cellular therapies targeting multiple antigens. They will now screen and evaluate libraries of already engineered dual-CARs to identify an optimal candidate. As they have done with novel CAR T cell therapies for blood cancers, they plan to translate this novel CAR T cell therapy to the clinic for GEA cancers with the goal of obtaining more durable responses for GEA patients and they march towards a cure.

Co-PIs Dr. Smith, Aguirre and Klempner and collaborators all agree, “DeGregorio Family Foundation funding is transformative for our research at this stage. The commitment that the Foundation made will enable us to leverage our understanding of immunotherapy targets for gastric and esophageal cancers to accelerate the development of a novel cellular therapy for translation to the clinic to directly impact patients.”

“We are honored to play a part in improving immunotherapy for gastroesophageal cancer patients,” concluded Lynn DeGregorio, President and Founder of the DeGregorio Family Foundation, the only public foundation solely focused on funding research grants for both gastric and esophageal cancers.

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

Dana-Farber Cancer Institute provides expert cancer care while advancing the understanding of cancer and related diseases. The Institute focuses on training new generations of clinicians and scientists, disseminating innovative patient therapies and scientific discoveries around the world, and reducing the impact of cancer.

The DeGregorio Family Foundation, founded in 2006 after a 10th member of the DeGregorio family died of stomach cancer, has raised more than \$12 million to fund innovative research to cure gastric and esophageal cancers. It is the only public foundation focused on funding research grants for both of these cancers.



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

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Research & Education for Stomach & Esophageal Cancer