



# The Mice Got Better

## The Al & Sharon Cinelli Family Foundation Funds Johns Hopkins' On-Going Research on the Effect Mebendazole Has Pancreatic Cancer

### Our Donation at a Glance

#### Recipient:

Dr. Gregory J. Riggins & The Fund for Johns Hopkins Medicine

#### Purpose of Donation:

To support Dr. Riggins research on how mebendazole effects the growth of both early and late-stage pancreatic cancer.

#### Donation Amount:

\$25,000.00

#### Date of Donation:

11.04.2022

#### Dr. Gregory Riggins:

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**Al & Sharon  
Cinelli Family  
Foundation**

*Finding Cures ... Expanding Minds*

In 2008, Dr. Gregory Riggins, MD, PhD and professor of neurosurgery and oncology at Johns Hopkins, was studying pediatric brain cancer in mice, when the laboratory mice unexpectedly failed to grow the medulloblastomas that were implanted. An astute postdoc fellow observed that the mice were being treated prophylactically for a pinworm infestation by the veterinarian with an antiparasitic drug. Dr. Riggins knew from previous studies that this class of antiparasitic drugs had interfered with other cancer studies.

It was a eureka moment, that begged the question, could one of these antiparasitic drugs be used for human cancer? A year and a half study of the various drugs in this class, found that one worked consistently best in animal models to slow cancer growth. That drug was mebendazole, and by sheer luck it was also approved by the FDA for human use.

More recently in 2021, Dr. Riggins and his Johns Hopkins team investigated mebendazole for use in mouse models of pancreatic cancer, recording its ability to prevent tumor initiation, survival benefit and amount of metastatic spread. Based on that research, "We are advocating for use of mebendazole as a therapy for those diagnosed before metastasis to see if we can slow or prevent pancreatic cancer," Riggins says. "For those with more advanced cancers, it could be an alternative to certain surgeries."

Since 2021 with the support of the Foundation and other grants, Dr. Riggins has been putting the pieces together, including developing the clinical protocol, to initiate a collaborative clinical trial for the use of mebendazole in the fight against advanced pancreatic cancer.

Additionally, a collaborative team at Johns Hopkins including Professor Riggins has developed a prodrug that overcomes the challenge mebendazole has being absorbed by gastrointestinal systems, increasing the potential therapeutic efficacy. This prodrug of mebendazole now has been licensed by a pharmaceutical company for further testing and development, paving the way for possible oncology clinical trials.

Reaching into 2023 and beyond, the Foundation is planning to continue supporting Dr. Riggins' work with mebendazole with the hopes of making a significant impact on the survival rates of pancreatic cancer patients.