New Release

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UNIVERSITY OF HAWAI'I CANCER CENTER RESEARCHER RECEIVES FIVE-YEAR $2.70 MILLION GRANT

New grant awarded to study how bacteria in the gut could lead to liver cancer

HONOLULU – A University of Hawai’i Cancer Center researcher has received a five-year more than $2.70 million grant to study how gut bacteria can damage the liver and eventually promote the development of fibrosis and liver cancer.

Dr. Wei Jia, PhD, director of Shared Resources at the Cancer Center and an expert in the field of metabolomics, which examines how the body's metabolites can indicate disease, received the grant from the National Cancer Institute starting Aug 1, 2015. His study will help researchers design new approaches to preventing liver cancer.

"Bacteria in the gut plays a big role in liver health. In the past people did not think gut bacteria was related to liver cancer. Understanding a disease was usually confined to a specific organ, but diseases involve organ to organ interactions," said Jia.

The study will look at the gut bacterial products, and how those compounds cause damage when they accumulate in the liver. Changes in bacteria may result in an increase in the concentration of certain toxic bile acids in the liver, resulting in sustained injury, and eventually liver cancer. One of the project's aims is to see if regulating the bile acid metabolism can protect the liver from longer term damage such as cirrhosis and cancer.

Liver cancer is a particular problem for Hawaii, which has the highest rate of liver cancer in the nation. The state has a large population of Asian and Pacific Islanders, some of whom are infected with hepatitis, which can lead eventually to liver cancer.

Across the U.S. an estimated 35,660 people will be diagnosed with liver cancer, and an estimated 24,550 people will die from it, according to the National Cancer Institute.