



\$13 Million Grant to Advance Liver Cancer Treatment Options

The grant will fund four research projects aimed at improving the efficacy of immunotherapy for liver cancer treatment.

October 21, 2024 By Laura Schmidt

VCU Massey Comprehensive Cancer Center researchers were awarded a grant worth more than \$13 million to study and advance treatment options for [hepatocellular carcinoma](#) (HCC), the most common form of primary [liver cancer](#), according to a [VCU news release](#).

Awarded by the National Cancer Institute, the five-year [grant](#) will support a four-part effort to better understand the biology of liver tumors and improve [treatment options](#) for people living with HCC.

“There are no other large, grant-funded projects like this in the country for obesity-associated [liver cancer](#); it has the potential to change the way the disease is treated,” said principal grant investigator Devanand Sarkar, MBBS, PhD, in the news release. “Within the umbrella of this grant, we have four separate research projects asking different molecular questions but with the same ultimate goal of identifying how we can exploit our findings to improve the efficacy of immunotherapy in liver cancer.”

About 41,630 new cases of HCC will be diagnosed in the United States this year, according to [the American Cancer Society](#). What’s more, liver cancer incidence rates have more than tripled, and death rates have more than doubled since 1980.

Treatment for HCC depends on how advanced the cancer is when detected, including how number and size of tumors and whether they have spread to nearby blood vessels, lymph nodes or other parts of the body. When detected early, however, liver tumors are typically small and can be surgically removed or a liver transplant can be performed.

A combination of immunotherapies and a class of drugs known as tyrosine kinase inhibitors (TKIs)

have shown some promise for people with HCC, but long-term effects are limited, according to VCU. Additionally, immunotherapy drugs work for only a subset of patients, and it is hard to predict who will benefit.

“Clinical trials show that immunotherapy is effective in less than one third of liver cancer patients, and nearly 100% of patients who are treated with TKIs invariably develop resistance to the drugs within one year,” said Sarkar, an associate director of cancer research training and education coordination and member of the Cancer Biology research program at Massey. “Even with the current treatments that are available for advanced disease, the patient survival rates are roughly less than two years.”

The National Cancer Institute grant will support four different research projects that will investigate the ability of a new drug that inhibits MYC function to treat liver cancer in combination with existing immunotherapies. Researchers aim to move findings from at least one of these projects to a clinical trial.

To read more, click [#Immunotherapy](#). There, you’ll find headlines such as “[Immunotherapy Before Surgery May Improve Outcomes for Patients With Liver Cancer](#),” “[NIAID Research to Eliminate the Threat of Viral Hepatitis Across the Globe](#)” and “[Adding Immunotherapy to Local Treatment Delays Liver Cancer Progression](#).”