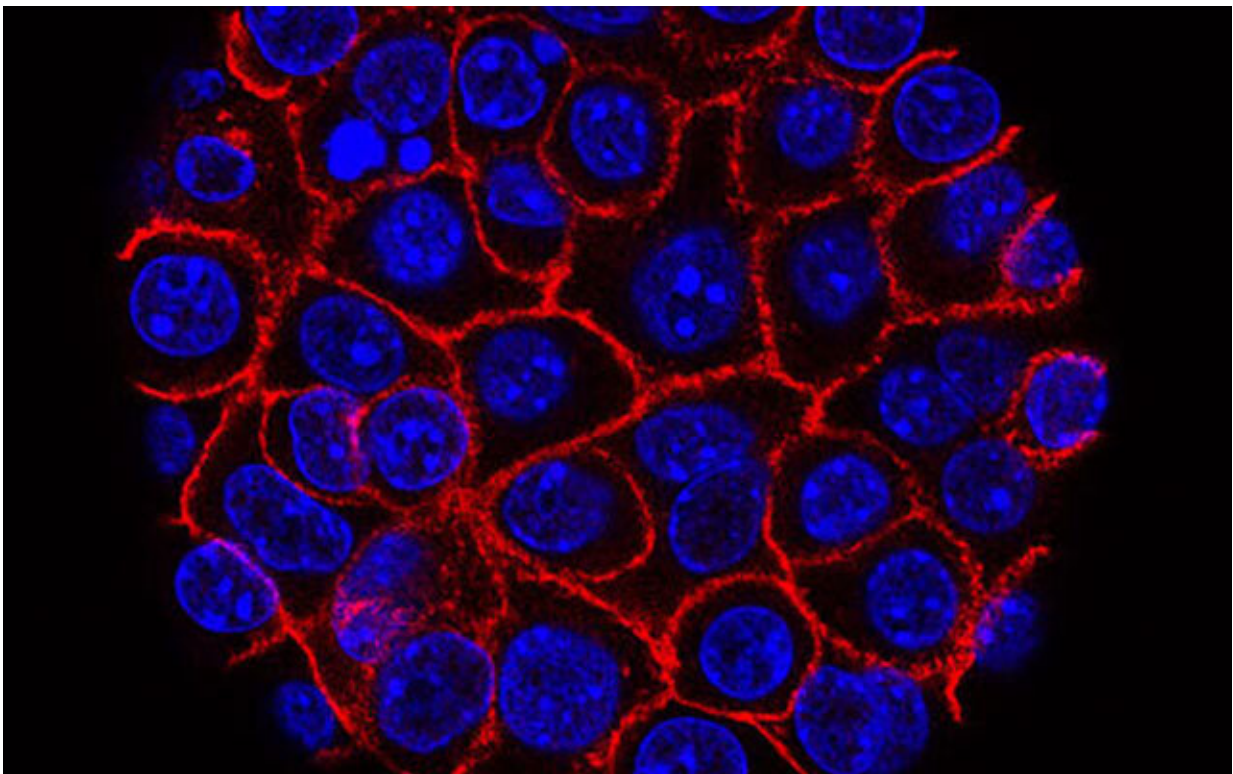


The technology used to make the COVID vaccine may be key to pancreatic cancer treatment

September 4 2024, by Kendall Staton, Lexington Herald-Leader



Pancreatic cancer cells (blue) growing as a sphere encased in membranes (red).
Credit: National Cancer Institute

Researchers at the University of Kentucky are testing the effectiveness of a vaccine that may be able to treat pancreatic cancer.

As one of 15 research institutions across the nation taking part in the new clinical trial, UK HealthCare will test a vaccine, made with the same sequencing technology as the COVID vaccine, to try to lessen the recurrence of [pancreatic cancer](#).

"Patients with pancreatic cancer need additional treatment options. Pancreatic cancer is one of the cancers that we have made little, if any, progress over the last couple of decades, and so this is a potential major breakthrough," said Dr. Joseph Kim, chief of surgical oncology at UK's Markey Cancer Center.

To be eligible for the trial, patients have to have a [cancerous tumor](#) that is resectable, meaning it can be removed through surgery. That limits the number of potential participants, Kim said, because most forms of pancreatic cancer can't be removed.

The UK will enroll a few patients per month during the trial, with the plan for a total of 200 participants across all [research institutions](#).

Once removed, the tumor is sent to a company in Europe, Genentech, which will perform DNA sequencing on the tumor to create an individualized vaccine for each patient. If effective, the vaccine will lessen the recurrence of pancreatic cancer.

"Even after removal, uniformly, a large percentage of patients will have a recurrence of disease," Kim said. "There are additional sites of disease that are just not visible with the naked eye, not visible with all the fancy radiographic imaging studies that we have. And so the [vaccine](#) would target what we would call the occult, or hidden, [cancer cells](#)."

This particular model was tested in a previous clinical trial to determine if it was safe to administer, called a phase one trial. With successful results, it now moves onto a phase two trial, where its effectiveness will

be studied.

Unlike other forms of cancer, patients with pancreatic cancer do not have a lot of effective treatment options, making [clinical trials](#) almost standard treatment. Kentucky has the second-highest rate of pancreatic cancer among U.S. states, according to information from the CDC.

"Our pancreatic cancer group here just published a paper showing that the outcomes for patients from Appalachian areas are worse than they are from other areas of Kentucky," Kim said.

"Patients from our underdeveloped, social, economically challenged areas of the state are not getting optimal care. We showed in our recent study, when patients did receive standard therapies—the best of care—that in the Appalachian patients with pancreatic cancer, such disparities are equalized, or those disparities are eliminated."

Kim said other trials have so far found vaccines used to treat [skin cancer](#) to be safe and effective. He said he thinks vaccines created through DNA sequencing will become mainstream cancer treatment.

2024 Lexington Herald-Leader. Distributed by Tribune Content Agency, LLC.

Citation: The technology used to make the COVID vaccine may be key to pancreatic cancer treatment (2024, September 4) retrieved 12 September 2024 from <https://medicalxpress.com/news/2024-09-technology-covid-vaccine-key-pancreatic.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--