

# Engineered small pox may kill liver cancer

April 10 2013

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As part of a multicenter clinical trial, researchers at University of California, San Diego School of Medicine are evaluating Pexa-Vec (JX-594) to slow the progression of hepatocellular carcinoma (HCC) or liver cancer. Pexa-Vec is a genetically engineered virus that is used in the smallpox vaccine.

"This clinical trial is evaluating a drug already known to be safe as a vaccine. We are applying it as a potential destructive agent for [liver cancer](#)," said Tony Reid, MD, PhD, professor of medicine, UC San Diego School of Medicine and medical oncologist at UC San Diego Moores Cancer Center. "The goal of the trial is to evaluate if Pexa-Vec can extend patients' survival through its ability to selectively target and kill [cancer cells](#), cut off the tumor's blood supply, and activate the body's own immune system to fight the cancer."

Patients who are eligible for this Phase 2b randomized clinical trial have a diagnosis of HCC and have been found to be unresponsive to [sorafenib](#), the only [systemic therapy](#) currently approved by the FDA.

The clinical trial is designed to compare overall survival for patients receiving the drug combined with palliative care (such as hydration, nutrition and pain management) to patients who receive palliation alone with no additional drug treatment.

While Pexa-Vec is derived from vaccinia virus and is similar to smallpox, it doesn't contain smallpox and cannot cause the disease. The virus was chosen for study because it shows an ability to target cancerous

tissues relative to normal tissues.

During the 18-week trial, Pexa-Vec is given both intravenously and injected directly into the tumor. Common side effects include flu-like symptoms including fevers, chills and fatigue that generally last less than 24 hours.

Hepatocellular carcinoma is estimated to be the third most common cause of cancer-related deaths world-wide, and the 5th most common [cancer diagnosis](#). It is estimated that 22,000 people were diagnosed in the U.S. last year, and 16,000 people died from the illness.

**More information:** [traversetrial.com/](http://traversetrial.com/)

Provided by University of California - San Diego

Citation: Engineered small pox may kill liver cancer (2013, April 10) retrieved 5 May 2024 from <https://medicalxpress.com/news/2013-04-small-pox-liver-cancer.html>

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