Michigan company thinks it may have found a coronavirus treatment drug

Meredith Spelbring, Detroit Free Press Published 7:21 p.m. ET April 16, 2020

A Michigan company has developed a version of a drug that may be effective in treating coronavirus patients.

SciTech Development, LLC is a local oncology drug development company that has created a new delivery system for a drug that has previously been used as anticancer therapy.

The drug, nanoFenretinide, is a new version of the drug fenretinide that is more soluble and can be put into the body at higher concentrations. The original drug, fenretinide, was created by Johnson and Johnson more than 30 years ago and has been used to help treat breast cancer patients, said SciTech Chief Medical Officer Brian Leyland-Jones.

Fenretinide itself has been approved for clinical studies and proven to be a relatively safe drug in treating cancer patients, by differentiating between healthy and cancerous cells, said SciTech President and Cofounder Earle Holsapple.

The drug has antiviral activities as well, but is relatively insoluble, which makes it harder for the body to absorb, Leyland-Jones said.

The new version, nanoFenretinide, has the ability to put more of the drug into the body without increased toxicity. Fenretinide has shown antiviral activity in preclinical trials against similar viruses including MERs, SARs and HIV, according to SciTech.

More: Michigan hospitals, Wayne State collaborate to bring coronavirus clinical trials to metro Detroit

More: Michigan warns residents: Don't take pet's heartworm medicine to treat coronavirus

"What SciTech did was develop a delivery system, which is basically just like an onion — it has a layer of lipid, layer of water, layer of lipid," Leyland-Jones said. "This increases significantly the amount of drug you can get into the body... it significantly enhances the delivery of the drug while maintaining low toxicity."

The new drug would not be a COVID-19 cure, but can help suppress inflammation and the body's reaction to the virus that triggers fever and chills.

"I do not think that this is going to be curative, but I think it would be adjunctive to every other treatment out there because of its efficacy and low toxicity," Leyland-Jones said.

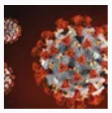
A proposal for the clinical trial has been submitted to the Biomedical Advanced Research and Development Authority (BARDA) of Health and Human Services. Once the company has received funding from BARDA and approval from the Food and Drug

MORE STORIES

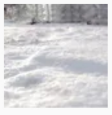

Oakland County stops COVID-19 data leak
April 16, 2020, 5:28 p.m.


Oakland County opens first drive-thru test site
April 16, 2020, 5:14 p.m.


TCF field hospital becomes refuge for very specific patients
April 16, 2020, 5:30 p.m.


Death toll in Michigan due to COVID-19 exceeds 2,000
April 16, 2020, 3:29 p.m.


Whitmer, other midwest governors: 4 factors we'll consider for reopening economy
April 16, 2020, 4:38 p.m.


Parts of Michigan could see up to 4 inches of snow
April 16, 2020, 2:39 p.m.

Administration, the clinical trial will roll out in Michigan and Chicago.

FDA already has the background on the original drug, Fenretinide, and has an expedited review program in place to help meet the high need for this type of drug, Holsapple said.

DIG DEEPER

Coronavirus crisis

- Detroit hospitals are laying off workers by the hundreds even as pandemic rages
- University of Michigan nurses protest lack of PPE and 'broken' health care system
- Hey, Michigan Capitol protesters: Next time stay in your cars
- Our coronavirus solidarity is mostly a myth
- Infection rate at Michigan prison exceeds New York, Chicago jail hot spots

The initial phase of the trial is expected to be completed in nine to 10 weeks once it is approved, Leyland-Jones said. The trial is designed to take coronavirus patients who have just been admitted to the hospital and hopefully prevent them from needing the ventilator at all.

"The whole idea on the trial is to take people as soon as they come in to the hospital and prevent them from going on to a ventilator," Leyland-Jones said.

If the trials go well, the drug could be put into production and distributed relatively rapidly, Leyland-Jones said.

"We are all ready. We are itching to go," Leyland-Jones said. "There are so many deaths, so many people dying unnecessarily of it every day. Whatever we can do to prevent this."

Meredith Spelbring is a news intern with the Detroit Free Press. Reach her at mspelbring@freepress.com or on Twitter @mere0415.

Detroit Free Press
PART OF THE USA TODAY NETWORK