

New Approach to Cancer Treatment

Breakthrough drug triggers the body's natural defenses. ::

BY VERA TWEED

A NEW TYPE OF CANCER drug could transform the treatment of many deadly cancers, especially those that have advanced or metastasized and do not respond to other therapies.

Rather than killing cancer cells, as chemotherapy does, the new drug — now being studied by the Cleveland Clinic in Ohio — aims to trigger one of our main natural defenses.

“In our body, every day, every second, there is malfunction in how cells multiply, there is some damage to the DNA, and there is uncontrolled growth,” explains Gabi Hanna, M.D., executive director of the Duke University Preclinical Translational Research Unit in Durham, North Carolina, and CEO of Lamassu Pharma, the company that developed the new drug.

In a healthy body, a built-in mechanism continually corrects this unhealthy growth.

“P53 is the main gene that controls that,” Hanna explains, much like an internal policing system.

But in 50% of cancers, he tells Newsmax, “This gene turned off, and that allows the tumor to grow uncontrollably.”



The new drug, called SA53-OS, aims to turn the protective P53 gene back on. The gene was discovered over 40 years ago but until now, no one had found a way to harness its power in the treatment of cancer.

HOW SA53-OS WORKS

In the human body, a protein called MDM2 is a major regulator of the P53 gene.

When MDM2 is overactive, it suppresses P53, allowing cancer cells to grow. The new drug inhibits overactive MDM2 and thereby reactivates the protective P53 gene, enabling it to kill cancer cells.

Traditional cancer treatments, such as chemotherapy and radiation, work quite differently, by directly targeting cancer cells. But they are also toxic to healthy tissues and produce significant side effects. SA53-OS should not produce major side effects because instead of using toxins to kill cancer cells, it enhances the body’s own ability to get rid of them.

SA53-OS is taken orally, not intravenously or by injection. Although initial testing will be done in a clinic, it could eventually be taken in pills at home.

“That is the hope,” says Hanna.

Types of Cancer Targeted

The new drug targets about half of all cancers, some more so than others. Although genetic testing is the only way to determine if the drug targets an individual case of cancer, below are the percentages of some cancer cases that SA53-OS could treat.

Type of Cancer	Percent Targeted
Chronic lymphocytic leukemia	95%
Acute myeloid leukemia	92%
Acute lymphoblastic leukemia	76%
Lymphoma	89%
Sarcoma	84%
Prostate	85%
Skin	81%
Breast	65%
Bladder	55%
Lung (non-small cell)	48%
Colon	47%
Pancreatic	35%
Colorectal	30%
Peritoneal	23%

“You won’t need to go to the hospital or travel.”

The dosage may range from one to three pills, taken every three or four weeks.

However, SA53-OS is not a replacement for traditional cancer treatments. Rather, it is designed to augment other treatments by getting rid of cancer growth that can’t be stopped by other means.

“We always have to address the acute part of the cancer,” says Hanna.

After surgery, chemotherapy, or radiation, cancer can go into remission and then recur, leading to more surgeries and other repeated treatments. SA53-OS holds promise to prevent such recurrences.

PARTICIPATING IN A STUDY

Researchers are recruiting participants for studies of SA53-OS.

The first step in the screening process is a genetic test to establish whether a cancer is a “P53 wild-type tumor” — the technical description of a malfunctioning P53 gene that the new drug is designed to treat.

If so, the patient may be eligible to participate in a trial, although this is not the only eligibility criteria. For more information, email info@lamassubio.com. □