

Scientists say the wasp venom of *Polybia paulista*, a wasp native to Brazil, could be a potential weapon against cancer.

According to the study published in the Biophysical Journal, the wasp's venom contains a toxin, named MP1, that selectively destroys tumor cells without harming normal, healthy ones.

The team from the University of Brazil say that the experimental therapy latches to tumor cells and makes them leak vital cancer molecules.

MP1 was found to hinder the growth and production of prostate and bladder cancer cells as well as leukemia cells that had been shown to be resistant to a variety of other drugs.

The wasp venom interacts with fatty molecules known as lipids that are found on the outside of cancer cell membranes. It is then able to disrupts the structure of the protective membranes, creating holes that allow molecules critical to the survival of the cancer cell to leak out.

Study co-author Dr. João Neto of Brazil's São Paulo State University said these "large" holes take "only seconds" to form.

Healthy cells don't have lipids on the outside, only inside, meaning they are not susceptible to the wasp venom the way cancer cells are.

"Cancer therapies that attack the lipid composition of the cell membrane would be an entirely new class of anticancer drugs," Paul Beales, one of the study's authors, stated in a news release. "This could be useful in developing new combination therapies, where multiple drugs are used simultaneously to treat a cancer by attacking different parts of the

cancer cells at the same time.”

Though the use of the wasp’s venom as a treatment option is an exciting possibility, it still remains theoretical. There is still a long way to go with the wasp venom studies, but this is a huge breakthrough in the battle of cancer.

Related Articles

[Ugandan Inventor Wins Africa Prize for Bloodless Malaria Test](#)

[Fundamental Organic Matter Found on Mars by NASA’s Curiosity](#)

Share with friends and coworkers:

- [Click to email this to a friend \(Opens in new window\)](#)
- [Click to share on Twitter \(Opens in new window\)](#)
- [Click to share on Facebook \(Opens in new window\)](#)
- [Click to share on Pinterest \(Opens in new window\)](#)
- [Click to share on LinkedIn \(Opens in new window\)](#)
- [Click to share on Tumblr \(Opens in new window\)](#)
- [Click to share on Reddit \(Opens in new window\)](#)