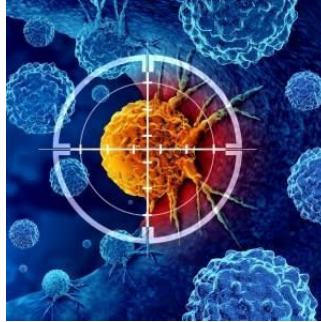


Groundbreaking Cancer Treatment: New Pill Found to Kill Tumors



Scientists at a leading U.S. hospital have reportedly made significant progress in developing a ground-breaking "cancer-killing pill" that targets solid tumours through "targeted chemotherapy."

The protein was created by a research team at City of Hope, one of the largest cancer research and treatment organisations in the U.S.

Known as AOH1996, this molecule functions by specifically targeting a cancerous variant of PCNA, a protein that in its mutated form is critical to DNA replication and repair, particularly in growing tumours.

The results, published in a study in the journal *Cell Chemical Biology*, noted that AOH1996 selectively killed cancer cells by "disrupting the normal cell reproductive cycle." This represents a significant step forward in cancer treatment research. This targeted approach to disrupting cancer cell growth while sparing healthy cells is a crucial aspect of developing less toxic cancer therapies.

Linda Malkas, senior author of the new study published in *Cell Chemical Biology*, said "Data suggests PCNA is uniquely altered in cancer cells, and this fact allowed us to design a drug that targeted only the form of PCNA in cancer cells".

"Our cancer-killing pill is like a snowstorm that closes a key airline hub, shutting down all flights in and out only in planes carrying cancer cells".

The results have been very promising for the potential of AOH1996 as a cancer treatment. It has shown effectiveness in suppressing tumor growth as a monotherapy or in combination with other treatments in cell and animal models without causing toxicity.

The development of AOH1996, which targets PCNA as a therapeutic, represents a significant breakthrough in cancer research. PCNA was viewed as 'undruggable' but clearly City of Hope was able to develop an investigational medicine for a challenging protein target.

Now that researchers have identified the problem area and a way to inhibit it, it opens up exciting possibilities for further research and development in the field of personalised, targeted cancer medicines.

Source: [Independent](#)

Image Credit: [iStock](#)

Published on : Thu, 3 Aug 2023