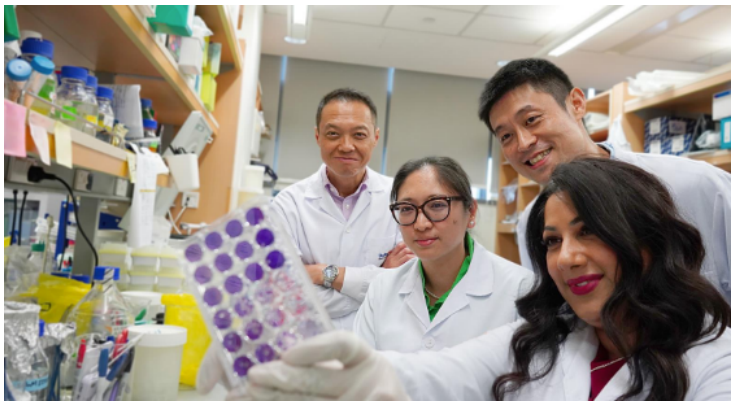
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ASIA EDITION

Zika virus vaccine emerges as tool in battling brain cancer: Singaporean study

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Scientists discovered that Zika virus vaccine strains eradicate brain tumour cells while sparing healthy ones



Scientists from Duke-NUS Medical School (Duke-NUS) at Singapore have developed a new approach using the Zika virus to destroy brain cancer cells and inhibit tumour growth, while sparing healthy cells.

Using Zika virus vaccine candidates developed at Duke-NUS, the team discovered how these strains target rapidly proliferating cells over mature cells, making them an ideal option to target fast-growing cancerous cells in the adult brain.

Their findings, published in the *Journal of Translational Medicine*, potentially offer a new treatment alternative for brain cancer patients who currently have a poor prognosis.

The team determined that ZIKV-LAV strains were highly effective in infecting cancer cells as these viruses bind to proteins that are present in high levels only in cancer cells and not in healthy cells. Upon infecting a cancer cell, these virus strains hijack the cell's resources to reproduce, ultimately killing the cell. As the cancer cell's protective membrane ruptures upon death, it releases its contents, including virus progeny that can infect and kill neighbouring cancer cells. In addition, some cellular proteins released from the infected cells can activate an immune response to further inhibit tumour growth.

The group is exploring commercialising their virus strains as both a Zika vaccine and treatment for brain cancer, and potentially other cancers, such as ovarian cancer.