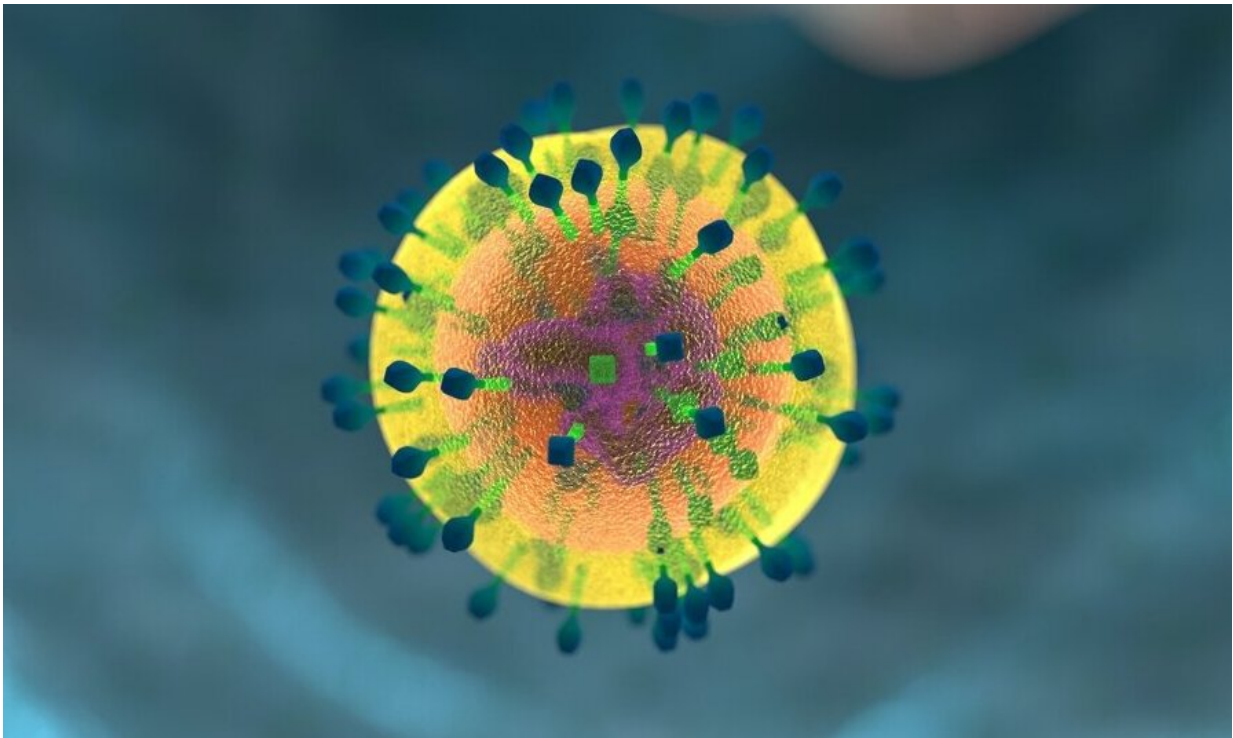


Could novel immune cell therapy combat hepatitis B infections?

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Chronic infection with the hepatitis B virus (HBV) causes progressive liver problems, and eradication of the virus remains a formidable challenge.

However, [new research](#) in *FEBS Letters* indicates that treatment that

boosts the effects of immune cells called stem cell memory T cells (TSCMs) may be a promising strategy for combating HBV.

In the study, investigators identified TSCMs in patients with chronic HBV infection and analyzed their effects in a mouse model of HBV. After introducing TSCMs from patients into the mice, the immune cells differentiated into cytotoxic T cells and activated a strong response that resulted in the elimination of HBV-infected liver cells. Therefore, augmenting patients' TSCMs may help the immune system overcome the virus.

"Our hepatitis model may reveal how TSCMs differentiate into cytotoxic T cells and uncover the fate of differentiated T cells. Such information could greatly advance future research on T cell-based therapies," said corresponding author Hiromi Abe-Chayama, Ph.D., of Hiroshima University, in Japan.

More information: Hepatitis B virus-specific human stem cell memory T cells differentiate into cytotoxic T cells and eradicate HBV-infected hepatocytes in mice, *FEBS Letters* (2024). DOI: [10.1002/1873-3468.14842](https://doi.org/10.1002/1873-3468.14842) , [onlinelibrary.wiley.com/doi/10 ... 1002/1873-3468.14842](https://onlinelibrary.wiley.com/doi/10.1002/1873-3468.14842)

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