



DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government Owned Invention Available for License: A Conserved Viral Peptide for use in Cancer Immunotherapy

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The National Cancer Institute (NCI) seeks research co-development partners and/or licensees for viral peptide (CE1)-based therapeutics for HCC prevention and treatment.

FOR FURTHER INFORMATION CONTACT: Inquiries related to this license opportunity should be directed to:

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SUPPLEMENTARY INFORMATION: Hepatocellular carcinoma (HCC) is a common and aggressive primary liver cancer. It develops mainly from at-risk individuals with underlying chronic liver diseases, such as hepatitis and cirrhosis. HCC is a leading cause of cancer-related death worldwide, and its global incidence and mortality rate continues to rise. The current methods for early detection, surveillance and treatment are suboptimal due to complex etiologies and intricate tumor biology.

Through serological profiling across three independent cohorts, researchers at the NCI have identified a common epitope (CE1) shared among protective viral antigens enriched in healthy individuals compared to HCC patients. A synthetic CE1 peptide was demonstrated to have utility in eliciting a T cell response to HCC cells and can be developed as an immunotherapy for HCC, such as a CE1-based HCC vaccine. Currently, as there are limited therapeutic options for HCC patients, novel treatments would offer tremendous commercial and public health benefits.

“This Notice is in accordance with 37 C.F.R. § 404.4 Authority to grant licenses.”

NIH Reference Number: E-023-2024.

Related Technologies: E-171-2022, E-174-2019.

Product Type: Therapeutic.

Therapeutic Area(s): Oncology.

Development Stage: Discovery.

Publications:

- Ma L, et al. Beneficial infections of the enterovirus genus in patients with liver cancer. (PMID: 40345802).

Patents: PCT/US2025/059785, filed December 16, 2025.

Potential Commercial Applications:

- HCC prevention and treatment.
- Predictive biomarker for HCC risk.
 - Serological response test.
 - Patient stratification for CE1-based therapy.
- Monitoring the efficacy of the CE1-based vaccine.

Competitive Advantages:

- VirScan data support that this peptide correlates with better outcomes in HCC and breast cancer.
- CE1 peptide shows an immunomodulatory effect; immunomodulators are a promising approach to cancer treatment.
- CE1 peptide is biologically active in inducing T cell cytolytic activity.
- HCC cell killing in an HLA-specific manner.

Collaboration Opportunity: Researchers at the NCI seek licensing and/or co-development research collaborations for viral peptide CE1-based therapeutics for HCC prevention and treatment.

Dated: June 30, 2026.

Richard U. Rodriguez,

Associate Director,

Technology Transfer Center,

National Cancer Institute.

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