



Billing Code 4167-05-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government Owned Invention Available for License: Chimeric Antigen Receptors Targeting the Gamma Delta ($\gamma\delta$) T-Cell Receptor

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The National Cancer Institute (NCI) seeks research co-development partners and/or licensees for a set of Chimeric Antigen Receptors (CARs) that target the $\gamma\delta$ T-Cell Receptor.

FOR FURTHER INFORMATION CONTACT: Inquiries related to this license opportunity should be directed to: Andrew Burke, Ph.D. Senior Technology Transfer Manager at Email: burkear@mail.nih.gov or Phone: 240-276-5484

SUPPLEMENTARY INFORMATION: T cells express two main types of receptors based on the proteins that make up the T-cell receptor (TCR) heterodimers: $\alpha\beta$ (alpha beta) and $\gamma\delta$ (gamma delta). T cells expressing the $\gamma\delta$ TCR are detected at lower frequencies compared with T cells expressing the $\alpha\beta$ TCR. $\gamma\delta$ T cells make up 0.3-10% of peripheral blood T cells. The $\gamma\delta$ TCR is expressed on the cell surface of several aggressive cancers, including – but not limited to – hepatosplenic T-cell lymphoma, primary cutaneous $\gamma\delta$ T-cell lymphoma and T-cell acute lymphoblastic leukemia (T-ALL). These cancers carry poor prognosis as they are often resistant to chemotherapy. In addition, to their roles in cancer development, $\gamma\delta$ T cells may also play role in autoimmune diseases, including psoriasis, rheumatoid arthritis, multiple sclerosis and myositis. There is evidence that $\gamma\delta$ T cells are involved in initiation or persistence of these autoimmune diseases. To this end, new treatment options are needed for $\gamma\delta$ T-cell malignancies and autoimmune diseases.

Researchers at the National Cancer Institute (NCI) have developed several CARs targeting the $\gamma\delta$ TCR. These CARs can specifically bind to and immunologically recognize human $\gamma\delta$ TCR. Binding of the CAR to the $\gamma\delta$ TCR elicits an immune response that allows for killing of cells expressing this TCR.

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

NIH Reference Number: E-214-2024.

Related Technologies: N/A.

Product Type: Oncology | Immunology.

Therapeutic Area(s): Therapeutic.

Development Stage: Pre-clinical (*in vivo* validation).

Publications:

- Kochenderfer JN, et al. Development of Novel Chimeric Antigen Receptors Targeting the Gamma-Delta ($\gamma\delta$) T-Cell Receptor. (<https://doi.org/10.1182/blood-2024-204126>).

Patents: PCT/US2025/040252, filed August 1, 2025.

Potential Commercial Applications:

- Enables the GMP production of personalized T cell therapy products targeting tumor specific mutations with a high percentage of engineered cells.

Competitive Advantages:

- Increased therapeutic benefit due to enhanced persistence and performance following adoptive T cell transfer.
- Increased therapeutic benefit due to improved surface expression of the therapeutic TCR $\alpha\beta$.
 - TCR alpha/beta chains substantially eliminate the risk of mis-pairing with the endogenous alpha/beta chain sequences expressed by the host cell.
- Improved manufacturing since the population is highly enriched for the desired engineered cells.
 - Greatly increases the frequency of tumor-specific T cells following expansion, exceeding what is achieved using alternative methods to generate mutation- or tumor-specific T cells.

Collaboration Opportunity: Researchers at the NCI seek licensing for TCR-engineered T cells that will facilitate the ACT process.

Dated: July 13, 2026.

Richard U. Rodriguez,

Associate Director,

Technology Transfer Center,

National Cancer Institute.

[FR Doc. 2026-14344 Filed: 7/15/2026 8:45 am; Publication Date: 7/16/2026]