BioSpectrum
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

Govt promotes indigenous CAR-NK cell therapy platform for oncology and treatment of leishmaniasis

26 February 2026 | News

To strengthen India's capabilities in the field of Advanced Immunotherapy and Biotherapeutics manufacturing



The Technology Development Board (TBD) under the Department of Science and Technology (DST), Government of India, has awarded the project "CAR-NK Based Cell Therapy Development and Clinical Trials for Defect-to-Treat Tumors and Leishmaniasis" to East Ocean Bio , Gurugram.

Financial assistance has been provided for this. The project aims to establish the first platform-based ecosystem in India for off-the-shelf CAR-NK cell therapy targeting resistant solid tumours and negligible infectious diseases. It aims to strengthen India's capabilities in the field of Advanced Immunotherapy and Biotherapeutics manufacturing.

CAR-NK (Chimeric Antigen Receptor–Natural Killer) cell therapy is emerging as an expandable and potentially safer alternative to traditional autologous (based on the patient's own cells) CAR-T therapy.

Under the project, the company proposes to develop and commercialise the following:

1. Anti-PD-L1 CAR-NK cell therapy for the treatment of a variety of resistant solid tumors, which are able to escape the body's immune system.
2. CAR-NK therapy targeting leishmaniasis: This represents a new immunotherapeutic strategy for tropical diseases that are extremely important and neglected from the point of view of public health in India.

This technology platform is developed entirely in-house (indigenously), focusing on allogeneic and off-the-shelf CAR-NK and CAR-?? T cell therapies derived from healthy donors. They are engineered in large quantities, cryopreserved (secured at low temperatures) under GMP-adaptable systems, and can be used directly without any patient matching—which makes its scalability, cost-effectiveness, and rapid deployment possible. The main feature of this innovation is to integrate PD-L1-targeted CAR constructs into NK cells using a gamma-retroviral platform, which ensures high expression efficiency and long-term functionality.