

" TDB-DST Supports Helix Cell Therapeutics under Indo-Singapore Collaboration for Advanced CAR-T Cell Therapy against Multiple Myeloma "

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In a significant step towards strengthening India's advanced biotechnology and cell therapy ecosystem, the Technology Development Board (TDB), Department of Science & Technology (DST), Government of India, has entered into an agreement with M/s Helix Cell Therapeutics Private Limited, Hyderabad, Telangana for the project titled "Generation of Novel Dual Targeting Chimeric Antigen Receptor T Cells to Treat Multiple Myeloma and Conducting Phase I Clinical Trial." The project is being implemented under the Indo-Singapore collaborative framework in partnership with Biocell Innovations, Singapore.



The project focuses on developing an advanced dual-targeting CAR-T cell therapy for Multiple Myeloma, a debilitating and currently incurable blood cancer. While existing CAR-T therapies targeting BCMA have shown encouraging outcomes in relapsed and refractory patients, the proposed innovation seeks to further improve treatment efficacy and durability of remission by simultaneously targeting both BCMA and CD19 markers expressed on Multiple Myeloma cells.

Under the project, Helix Cell Therapeutics will develop, manufacture, and clinically evaluate next-generation dual-targeting CAR-T cells through a Phase I clinical trial. The therapy is intended for patients who have exhausted multiple lines of treatment and currently have limited therapeutic options available.

CAR-T cell therapy involves genetically engineering a patient's own T lymphocytes to specifically identify and destroy cancer cells. The proposed dual-targeting strategy represents a significant advancement over conventional single-marker CAR-T therapies and is expected to improve long-term remission outcomes in difficult-to-treat Multiple Myeloma patients.

The project aligns with the Government of India's vision of strengthening indigenous capabilities in advanced biologics, precision medicine, and next-generation healthcare technologies under the broader framework of Aatmanirbhar Bharat. It also reinforces international technology collaboration between

India and Singapore in emerging biomedical innovation sectors.

Speaking on the occasion, Shri Rajesh Kumar Pathak, Secretary, TDB, stated, “Advanced cell and gene therapies represent the future of precision healthcare and hold transformative potential for treating complex and previously incurable diseases. Through this Indo-Singapore collaborative project, TDB is supporting indigenous innovation in advanced immunotherapy platforms that can strengthen India’s global position in next-generation biotechnology and affordable healthcare solutions.”

A representative from Helix Cell Therapeutics Private Limited expressed gratitude for TDB’s support and stated that the assistance would accelerate clinical translation and commercialization of the company’s innovative CAR-T therapy platform while expanding access to advanced cancer treatment solutions in India.

--- For any media inquiries, please reach us at: media-coordinator@tdb.gov.in

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