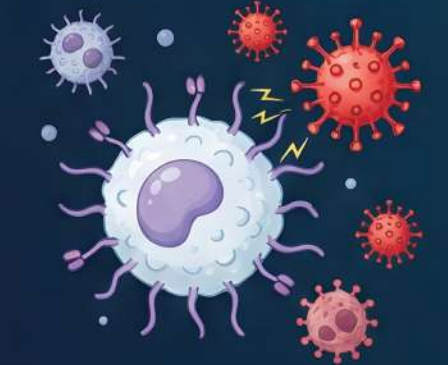


CAR T-CELL THERAPY



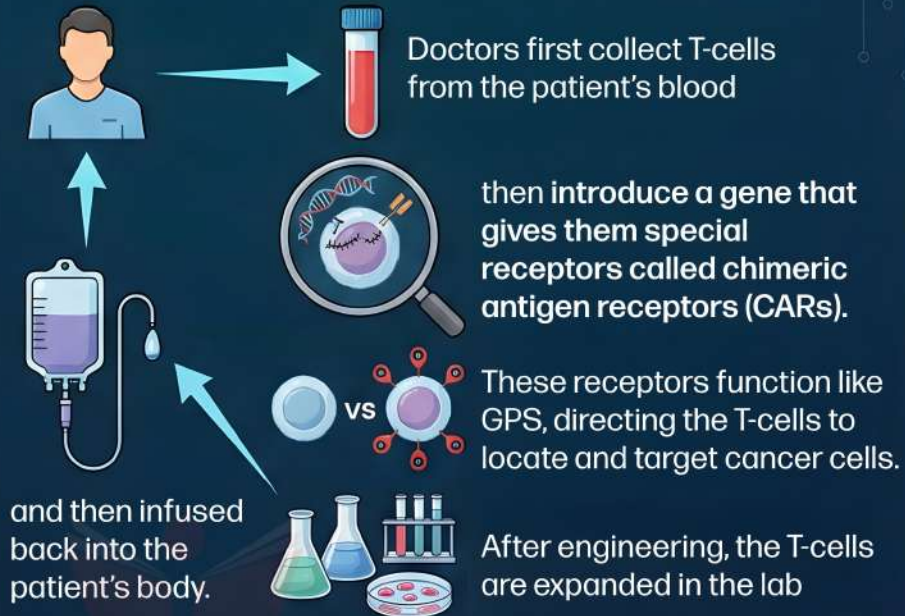
Researchers at IIT Bombay addressed a critical challenge in CAR T-cell and other adoptive T-cell transfer (ACT) therapies.

CAR T-cell therapy



T-Cells

They are white blood cells that act as the body's frontline defenders, detecting and destroying infections or abnormal cells like cancer, and coordinating other immune cells to respond—making them crucial for immunotherapy.



NexCAR19

NexCAR19 is the world's first humanised CAR-T therapy developed in India by ImmunoACT.

Benefits



Targeted Precision: CAR-T cell therapy Specifically attacks cancer cells while sparing healthy cells, reducing side effects compared to chemotherapy.



Personalised Treatment: CART cell therapy Uses the patient's own T-cells, engineered to target their unique cancer, enhancing effectiveness.



Long-Lasting Effects: Engineered T-cells can persist in the body, providing extended protection against cancer recurrence.



Reduced Hospitalisation & Costs: Fewer hospital stays and less supportive care needed, leading to potential cost savings.



Technological Evolution: Continuous development of CAR constructs allows targeting of diverse cancers and combination therapies.



Affordability: Indigenous therapies like NexCAR19 in India make CAR-T treatment more accessible and cost-effective.