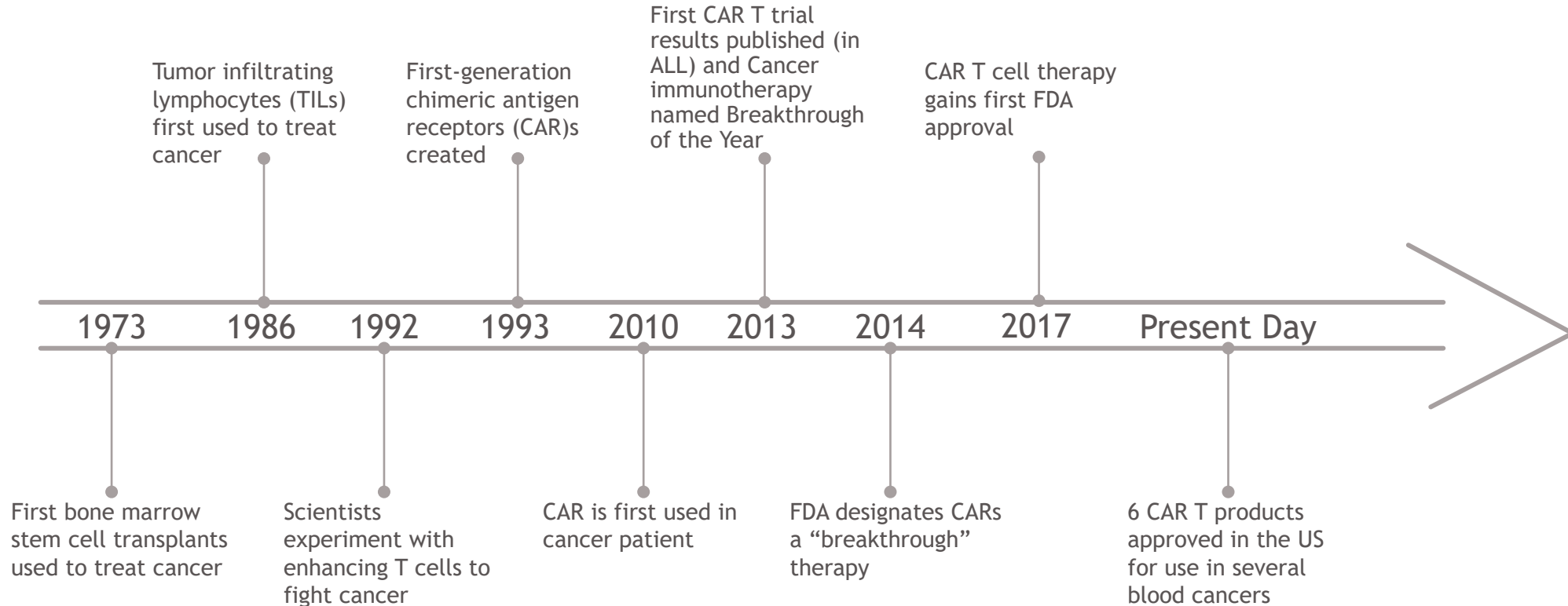


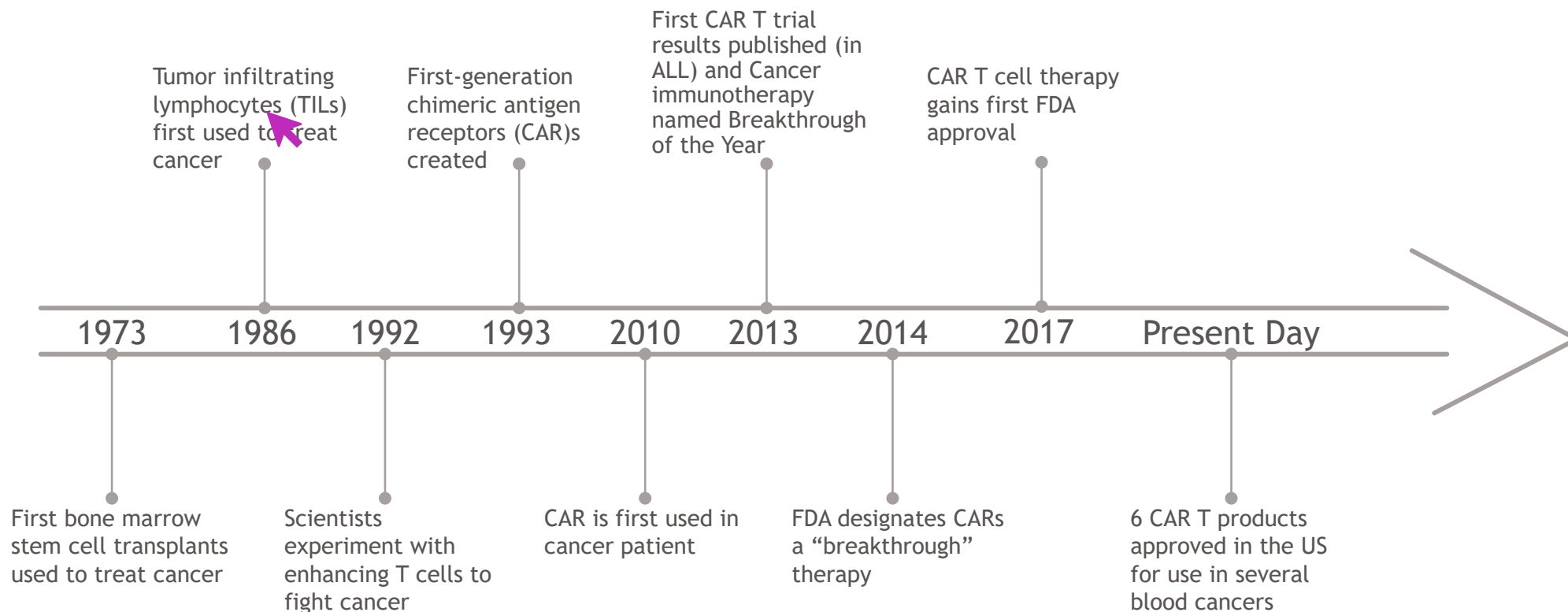
Timeline/History

CAR T cell therapy is a type of immunotherapy that transforms your own immune cells into specific disease fighters. CAR T cell therapy has been studied for over 30 years. To learn more about specific points in the history of CAR T, click the timeline below.



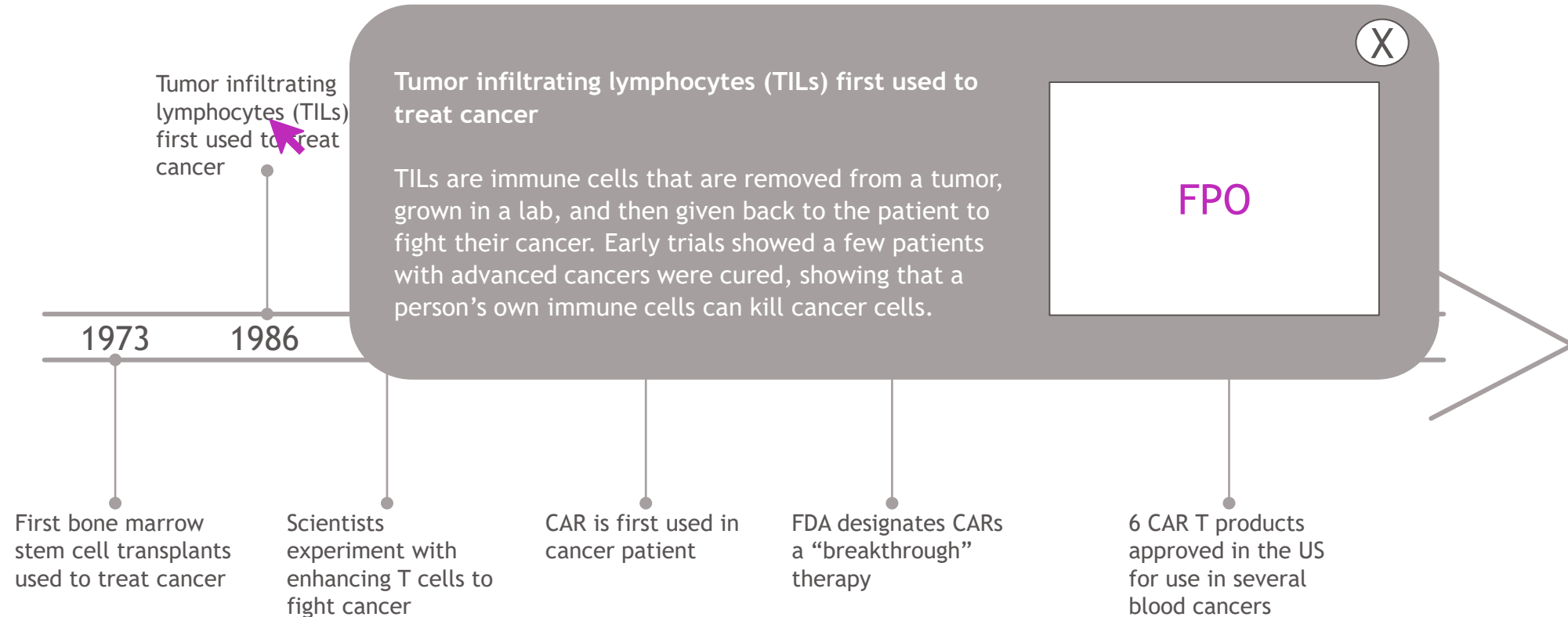
Timeline/History - user clicks on a timepoint

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Timeline/History - user clicks on a timepoint and pop up/new content appears

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Timeline/History - full content

Date	Text on Timeline	Pop-Up Text
1973	First bone marrow stem cell transplants used to treat cancer	In what is considered by many to be the first successful immunotherapy, scientists take stem cells from the bone marrow of a donor and transplant them into a cancer patient. The immune cells in the donor's bone marrow kill cancer cells in the recipient and the healthy donor cells repopulate the patient's bone marrow.
1986	Tumor infiltrating lymphocytes (TILs) first used to treat cancer	TILs are immune cells that are removed from a tumor, grown in a lab, and then given back to the patient to fight their cancer. Early trials showed a few patients with advanced cancers were cured, showing that a person's own immune cells can kill cancer cells.
1992	Scientists experiment with enhancing T cells to fight cancer	Scientists take T cells and adapt them in the lab to be stronger cancer fighters. They use genetic engineering to make this possible.
1993	First-generation chimeric antigen receptors (CAR)s created	CARs are developed by adding new receptors to the surface of T cells. These early CARs do not work in the body but are an important innovation in immunotherapy.
2010	CAR is first used in cancer patient	Over 15 years after the first CARs were developed, CAR T cell therapy was first used in a human patient ushering in a new era of personalized medicine.
2013	First CAR T trial results published (in ALL)	Results from a clinical trial of CAR T cell therapy in adults with a blood cancer called acute lymphoblastic leukemia (ALL) are published. This is the first published study of CAR T cell therapy in people.
2013	Cancer immunotherapy named Breakthrough of the Year	Science magazine votes cancer immunotherapy the Breakthrough of the Year. CAR T cell therapy is one of several therapies mentioned in the article.
2014	FDA designates CARs a "breakthrough" therapy	In an important regulatory step, the FDA grants CAR T cell therapy breakthrough designation. This helps speed up the development of a therapy for serious conditions.
2017	CAR T cell therapy gains first FDA approval	44 years after early research on using the immune system to target cancer, the FDA approved the first CAR T cell therapy for children and young adults with ALL.
Present Day	6 CAR T products approved in the US for use in several blood cancers	Today, there are 6 FDA-approved CAR T cell therapy products. CAR T cell therapy is currently approved for use in patients with certain blood cancers and the number of products and uses is expected to continue to grow with ongoing research in additional blood cancers, solid tumors, as well as autoimmune and other diseases.