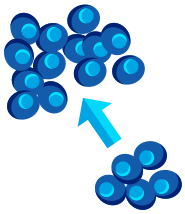
How Immunotherapeutics Work

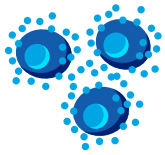
Immunotherapeutics utilize multiple mechanisms to unleash a patient's immune system against cancer:

Some **release the brakes** on the natural cancer-fighting power of the immune system, for example, relatlimab (Opdualag), the newest and the ninth member of this class of immunotherapeutics approved in March 2022.

Some **provide more cancer-targeted immune cells** called T cells to amplify the killing power of the immune system, for example, the chimeric antigen receptor T cell therapeutic, brexucabtagene autoleucel (Tecartus), approved in October 2021 to treat acute lymphoblastic lymphoma in adults.



Some **enhance T-cell function** to increase the killing power of the immune system, for example, interleukin-2 (Aldesleukin).



Some **trigger cancer-fighting T cells** to enhance the killing power of the immune system; these are called therapeutic cancer vaccines, for example, sipuleucel-T (Provenge).

Some **flag cancer cells for destruction** by the immune system, for example tebentafusp-tebn (Kimmtrak), which was approved by FDA in January 2022 to treat a rare type of eye cancer.

Some **comprise a virus that preferentially infects and kills cancer cells**, releasing molecules that trigger cancer-fighting T cells; these are called oncolytic virotherapeutics, for example, talimogene laherparepvec (T-Vec; Imlygic).