IMMUNO-ONCOLOGY

Drug Development Growth

Number of immunotherapy drugs in the drug development pipeline



Top 10 targets in 2021

CTLA4 Most drugs in development against protein receptor/immune checkpoint cytotoxic T-lymphocyte-associated protein 4 (CTLA4) are T-cell targeted

immunomodulators.

CD19

Most drugs in development against CD19, a transmembrane protein, are cell therapies.

BCMA

Scientists are developing many cell therapies against the B-cell maturation antigen (BCMA), which is highly expressed on malignant plasma cells in multiple myeloma cancers.

TAA

Tumor-associated antigen (TAA) levels are elevated on cancer cells. Cancer vaccines and cell therapies are common therapeutic types in development for this target.

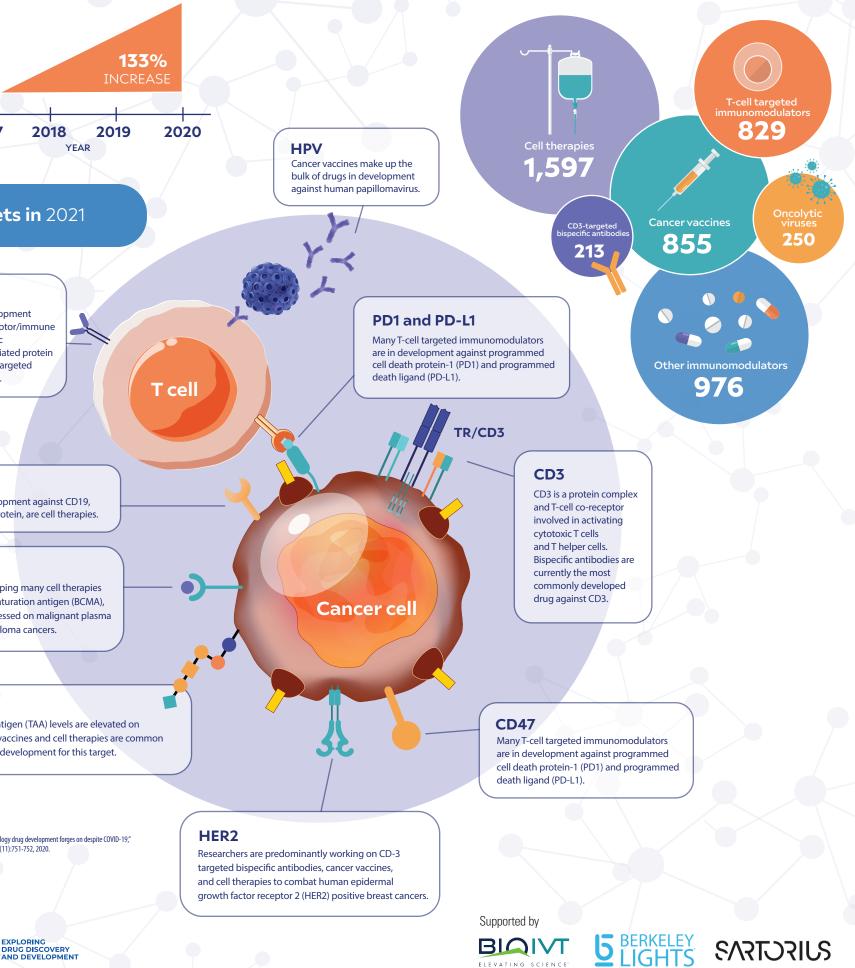
S. Upadhaya et al., "Immuno-oncology drug development forges on despite COVID-19," Nature Reviews: Drug Discovery, 19(11):751-752, 2020.



The immune system prowls the body in a process known as immunosurveillance, and eliminates potential threats that it encounters. Cancer evades this surveillance by suppressing the immune system, interfering with the antitumor response. By harnessing the molecular machinery of the immune system, scientists reactivate the natural process of immunosurveillance to combat cancer.

Scientists in the field of immuno-oncology develop numerous immune-mediated methodologies for destroying malignant tumors. From 2019 to 2020, there was a 22% increase in immuno-oncology drugs in the development pipeline, a greater surge than the 15% increase from 2018 to 2019. The number of clinical trials testing immuno-oncology agents also increased by 14% in 2020, despite the ongoing pandemic, affirming immuno-oncology therapies as a mainstay in the drug development pipeline.

Therapy types (2020)



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