

The Cancer Moonshot

In January 2016, the Obama Administration announced the Cancer Moonshot, an ambitious endeavor to accelerate progress against cancer. Congress passed the 21st Century Cures Act in December 2016, authorizing \$1.8 billion in funding for the Cancer Moonshot over seven years. To date, Congress has appropriated over \$1.5 billion in Cancer Moonshot funding, which has supported a wide range of cancer research initiatives to accelerate discovery, increase collaboration, reduce cancer health disparities, and expand data sharing. Since 2017, NCI initiatives under the Cancer Moonshot have resulted in nearly 250 projects across a broad

range of urgent cancer needs. These projects are delivering important insights into the mechanisms that drive cancer and point to areas where we can intervene and they have also identified several candidates for new approaches to prevent, detect and treat cancer.

The Cancer Moonshot brought together a large community of people with cancer, patient advocates, investigators, and clinicians who are dedicated to accelerating cancer research to improve the lives of people with cancer and their loved ones. Below are Cancer Moonshot featured projects from 2017-2022 that highlight the progress of Moonshot efforts:



Accelerating childhood cancer treatments with fewer long-term and late effects. Developing new treatment approaches for childhood cancers driven by fusion oncoproteins.



Supporting data sharing tools and services through the Cancer Research Data Commons to learn from every patient.



Addressing disparities in colorectal cancer screening among American Indians, using a patient navigation program including community, clinician, and patient input.



Establishing a network of researchers focused on preventing, mitigating, and addressing adverse physical and psychosocial effects in survivors of pediatric and adolescent/young adult (AYA) cancers.



Prioritizing diversity, equity, and inclusion in genomics research by engaging cancer patients and survivors from diverse backgrounds to address knowledge gaps in understanding genomic changes in tumors.



Testing if a single dose of the Human Papillomavirus (HPV) vaccine can increase the prevention of cervical cancer, particularly where cost and logistics of the multiple-dose schedule have impeded vaccination uptake.



Enhancing immuno-oncology research significantly, including developing early-stage preclinical immunotherapy approaches, including CAR T cell antibodies, to treat pediatric cancers and identify biomarkers of immunotherapy resistance.



Generating dynamic 3D human tumor atlases to help researchers and physicians “see” a tumor and broadly sharing the atlases, data, and computational tools through the Human Tumor Atlas Network Data Portal.

For more information and updates, visit cancer.gov/moonshot, which includes progress under each recommendation, a series of seminars, and a page and video series dedicated to progress.

In February 2022, President Biden announced that his administration is reinvigorating the Cancer Moonshot. The next phase of the Cancer Moonshot has two ambitious goals: Cut the death rate from cancer by 50 percent and improve the lives of people and their families living with and surviving cancer. Taken together, these actions will help end cancer as we know it.

As the cancer research arm of the federal government, NCI is uniquely qualified to lead the next phase of Cancer Moonshot research. Through several new or

enhanced research programs that will fall under the reinvigorated Cancer Moonshot, NCI and the cancer research community will work together to improve cancer detection methods and enable greater uptake of proven approaches to prevent and treat cancers of all types among all communities. By collaborating across government and the private sector and by working with people with cancer and the advocacy community, we can achieve the President’s goal of “ending cancer as we know it.”