

AACR Cancer Progress Report highlights how discovery science is driving clinical breakthroughs

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Today, the American Association for Cancer Research (AACR) released the 11th edition of its annual *Cancer Progress Report*, which underscores how cancer research, largely supported by federal investments in the

National Institutes of Health (NIH) and the National Cancer Institute (NCI), continues to drive progress for patients with cancer. The report chronicles advances in basic, translational, and clinical cancer research; features profiles of patients who have benefited from recently approved anticancer therapeutics; includes the latest information on cancer prevention, detection, and health disparities; and outlines policy recommendations to ensure that the U.S. maintains its momentum against cancer.

"The *AACR Cancer Progress Report* is unique in that it details the remarkable progress made in the past year and provides a clear-eyed assessment of where improvements are needed to help markedly reduce the [cancer](#) burden," said David A. Tuveson, MD, Ph.D., FAACR, President of the AACR. "As progress continues, I look forward to a world where people can live beyond their cancer. Indeed, our prospects for making substantial advances for cancer patients through research have never been greater than they are today."

FIFTY YEARS OF PROGRESS

This year's report highlights the enormous strides in [cancer research](#) and treatment since the National Cancer Act was signed into law by President Richard Nixon on December 23, 1971. This groundbreaking legislation laid the foundation for a robust and innovative cancer research community which has contributed to decades of progress for patients in the U.S. and around the world, notably:

- In the U.S., the overall age-adjusted [cancer death rate](#) has decreased by 31 percent from 1991 to 2018, a reduction that translates into 3.2 million lives saved. This reduction includes a record 2.4 percent decline between 2017 and 2018, the largest reduction ever seen in a single year.
- Successful efforts to reduce smoking rates among Americans

have contributed to a 41 percent decline in lung cancer-related deaths from 1991 to 2018.

- Fueled by discoveries made over the past 50 years, molecularly targeted therapeutics and immunotherapeutics have substantially increased the five-year survival rates for patients with formerly intractable cancers, like lung cancer and metastatic melanoma.

INNOVATING FOR PATIENTS

Building on the successes of the past 50 years, cancer researchers continue to make advances that improve, extend, and save lives. The following section highlights progress during the 12 months covered by the report (August 1, 2020 to July 31, 2021):

- The U.S. Food and Drug Administration (FDA) approved many anticancer therapeutics, diagnostic tools, and other technologies that benefit patients with cancer, including:
 - 16 new anticancer therapeutics;
 - 11 previously approved anticancer therapeutics, which are now approved for treating new types of cancer;
 - 3 new diagnostic imaging agents;
 - 2 new surgery guiding devices;
 - 2 new multi-panel next-generation sequencing liquid biopsy companion diagnostic tests; and
 - 1 new artificial intelligence-driven endoscopy device.
- Recent breakthroughs in precision medicine include:
 - Sotorasib (Lumakras), the first FDA-approved therapeutic to successfully target the previously "undruggable" KRAS;
 - The first approval of an antibody-drug conjugate, fam-

- trastuzumab deruxtecan-nxki (Enhertu), for treating patients with HER2-positive gastric cancer; and
 - Relugolix (Orgovyx), the first oral hormone therapy approved for treating patients with advanced prostate cancer.
- Research also continues to advance immunotherapy, leading to FDA approvals of:
 - Idecabtagene vicleucel (Abecma), the first approved CAR T-cell therapy for the treatment of patients with multiple myeloma;
 - Dostarlimab-gxly (Jemperli), a new checkpoint inhibitor to treat patients with endometrial cancer who have certain biomarkers in their tumors; and
 - The checkpoint inhibitor nivolumab (Opdivo) in combination with ipilimumab (Yervoy) for treating patients with mesothelioma—the first new frontline treatment for this disease in 16 years.
 - The United States Preventive Service Task Force (USPSTF) updated its guidelines for lung and colorectal cancer screening, lowering the age of screening initiation for both cancers. These changes may lead to increased early detection, which could potentially improve treatment outcomes for these cancers.

ONGOING CHALLENGES REQUIRE CONTINUED INVESTMENT

Despite the immense strides that are being made across the continuum of cancer research and patient care, challenges remain in our goal of addressing this complex disease. Cancer continues to be a leading cause

of death in the U.S. and around the world. In the U.S., nearly 1.9 million new cases and more than 600,000 deaths from cancer are predicted to occur in 2021.

The ongoing COVID-19 pandemic is expected to compound cancer's enormous toll. The pandemic has already impacted all aspects of cancer care and research, contributing to delayed or skipped cancer screenings, overburdened health systems, and lost career opportunities for cancer researchers, especially among early-stage, minority, and female investigators. Patients with cancer are at greater risk for infection, severe disease, and death from COVID-19.

[Cancer health disparities](#) continue to be a persistent and pervasive public health problem. While advances have been made in identifying, understanding, and addressing the higher rates of cancer incidence and mortality experienced among underserved population groups in recent years, the pandemic has disrupted this progress.

To address these challenges and enable ongoing progress for patients, the *AACR Cancer Progress Report* lays out clear policy recommendations and calls on Congress to:

- Prioritize robust, sustained, and predictable growth for the NIH and NCI by providing increases in their fiscal year 2022 base budgets of at least \$3.2 billion and \$1.1 billion, respectively;
- Provide at least \$10 billion for the NIH in emergency supplemental funding to restart research and clinical trials that have been put on hold due to the pandemic; and
- Support the creation of an Advanced Research Projects Agency for Health (ARPA-H) designed to prioritize high-risk, high-reward approaches to prevent, diagnose, and cure diseases such as cancer.

"We are at an inflection point in cancer research," said Margaret Foti, Ph.D., MD (hc), chief executive officer of the AACR. "Major milestones in discovery science over the past five decades, cutting-edge technologies, and bipartisan Congressional support for the NIH and NCI have led to unprecedented advances for [cancer patients](#). As the cancer research community and our country as a whole recover from the impact of COVID-19, ensuring that medical research remains a national priority is essential if we are to continue our progress toward the goal of preventing and curing all cancers at the earliest possible time."

Provided by American Association for Cancer Research

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