AACR Cancer Progress Report Highlights Breakthroughs and Challenges

Cancer research has seen enormous strides in the past 50 years, but disparities persist and COVID-19 has led to setbacks.

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The American Association for Cancer Research has released its Cancer Progress Report 2021, highlighting major advances in research and treatment as well as barriers including persistent disparities and setbacks related to the COVID-19 pandemic. The report was unveiled during a virtual congressional briefing on October 13.

"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," AACR president David Tuveson, MD, PhD, said in a press release. "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."

The 11th edition of the report summarizes advances during the past year and includes a special section on the "enormous strides" in basic, translational, and clinical research that have been made since the National Cancer Act of 1971 was signed into law 50 years ago. The also report underscores the importance of "robust, sustained and predictable growth in funding" for the National Institutes of Health (NIH) and the National Cancer Institute (NCI) to ensure that such progress can continue.

Between 1991 and 2018, the overall age-adjusted cancer death rate has decreased by 31%, which translates into 3.2 million lives saved, according to the report. This includes a 2.4% decline between 2017 and 2018—the largest reduction ever seen in a single year. The decrease is in part attributable to efforts to reduce smoking, which contributed to a 41% decline in lung cancer deaths. In addition, the discovery of new targeted therapies and immunotherapies have increased five-year survival rates for people with some formerly intractable cancers, such as like cancer and metastatic melanoma.

Among the advances during the past year, the Food and Drug Administration approved 16 new

cancer medications as well as 11 new indications for previously approved drugs to treat additional types of cancer. These include Lumakras (sotorasib), the first medication targeting the previously "undruggable" KRAS gene; the antibody-drug conjugate Enhertu (fam-trastuzumab deruxtecan) for HER2-positive stomach cancer; Orgovyx (relugolix), the first oral hormone therapy for advanced prostate cancer; Abecma (idecabtagene vicleucel), the first CAR-T therapy for multiple myeloma; and the new checkpoint inhibitor Jemperli (dostarlimab). The report features profiles of patients who have benefitted from recently approved therapies.

The report also summarizes the latest information on cancer prevention and detection. During the past year, the United States Preventive Service Task Force updated its guidelines for lung cancer screening to expand eligibility and lowered the age for starting colon cancer screening.

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But the news is not all good. Cancer continues to be a leading cause of death in the United States and around the world. Nearly 1.9 million new cancer cases and more than 600,000 cancer deaths are predicted in the U.S. in 2021.

The ongoing COVID-19 pandemic is expected to worsen the 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," according to the AACR press release. Several studies have shown that people with cancer are at greater risk for severe disease and death from COVID-19 and some may not respond as well to COVID-19 vaccines.

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In addition, cancer health disparities “continue to be a persistent and pervasive public health problem” the statement says. “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, the report calls on Congress to increase funding by at least $3.2 billion for the NIH and $1.1 billion for the NCI in the fiscal year 2022 budget, as well as $10 billion in emergency supplemental funding to restart research put on hold due to the pandemic. AACR supports the Biden administration’s plan for an Advanced Research Projects Agency for Health to prioritize “high-risk, high-reward” approaches to prevent, diagnose and cure cancer and other diseases.

“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,” said AACR CEO Margaret Foti, MD, PhD. “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.”

Click here to read the full AACR Cancer Progress Report 2021.
