

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

Hearing on FY 2020 National Institutes of Health Budget Request

Witness appearing before the

Senate Appropriations Subcommittee on Labor, HHS, Education, and Related Agencies

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Good morning, Chairman Blunt, Ranking Member Murray, and distinguished Members of the Subcommittee. I am Francis S. Collins, M.D., Ph.D., and I have served as the Director of the National Institutes of Health (NIH) since 2009. It is an honor to appear before you today.

Before I discuss NIH's Budget request for the upcoming fiscal year and some of the exciting scientific opportunities on the horizon, I want to express my gratitude to the leadership and members of this Subcommittee. In FY 2019, NIH received an increase of \$2 billion. I can promise you that we are investing those resources in groundbreaking research as quickly as we can.

Biomedical research at NIH seeks to push forward the frontier of knowledge, from basic science to translational research to clinical trials, and success relies on vision, risk-taking, and a tireless pursuit of the next scientific question. NIH will continue to invest in people, programs, infrastructure, and technology with these goals in mind, consistently striving for breakthroughs that culminate in improvements in human health and wellbeing. From harnessing new technologies to supporting the next generation of researchers, NIH will invest its resources to ensure that the U.S. remains at the forefront of innovation and discovery.

The FY 2020 President's Budget provides \$34.4 billion for NIH, seeking to fund the highest priority scientific discoveries while also maintaining fiscal stewardship of Federal resources. This Budget will prioritize biomedical research to confront our nation's greatest medical challenges, including the opioid crisis, precision medicine, and pediatric cancer.

As in previous years, the Budget proposes to streamline federal research by consolidating activities of the Agency for Healthcare Research and Quality (AHRQ) into a new National Institute for Research on Safety and Quality (NIRSQ) within the NIH. The

Budget provides NIRSQ \$256 million to support its activities to improve the quality, safety, effectiveness, and efficiency of health care.

America's continuing leadership in biomedical research requires infrastructure and facilities capable of housing safe, reproducible research in compliance with all laws and regulations and conducive to cutting edge research. NIH buildings include inpatient hospital beds, Biosafety containment facilities, biomedical research laboratories, animal holding facilities, and even a utility plant. NIH's backlog of maintenance and repair now exceeds \$1.8 billion.

NIH is aggressively using FY 2019 funding to address some of this backlog and ensure our facilities are both safe for patients and conducive to cutting-edge research and research support. The FY 2020 Budget invests in NIH's facilities by again proposing \$200 million to support multiple biomedical research infrastructure priorities at NIH-owned sites.

One of my personal priorities since joining NIH has been to develop and support the next generation of biomedical researchers. In August 2017, NIH launched the Next Generation Researchers Initiative to address the challenges faced by researchers trying to embark upon and sustain independent research careers. I am pleased to report that NIH met its ambitious goal of funding 1,100 early-stage investigators in FY 2018. In fact, we funded 1,287, the largest number in history. The FY 2020 Budget includes a dedicated fund of \$100 million in the Office of the Director to support the prioritization of meritorious applications to support early stage investigators that have never been funded by an award, or current NIH-supported researchers at risk of losing support. NIH remains committed to the development, support, and retention of our next generation of investigators.

This is a remarkable time in biomedical research. Truly exciting, world class science is taking place through NIH support, and leading to breakthroughs in multiple areas. I would like to provide just a few examples of the depth and breadth of the amazing research the FY 2020 Budget supports.

The FY 2020 Budget continues to invest in Precision Medicine. Less than one year ago, NIH formally launched national enrollment for the *All of Us* Research Program. This program is on pace to enroll one million or more U.S. volunteers in an ambitious effort to accelerate health research and medical breakthroughs. With this Committee's long-standing support, we are closer than ever to building the most diverse biomedical data resource of its kind. By analyzing individual differences in lifestyle, environment, and biology, researchers will uncover paths toward delivering precision medicine, an emerging approach for disease prevention and treatment.

As of April 7, 2019, more than 212,000 people have begun the enrollment process, and more than 129,000 have completed all the steps in the protocol. The *All of Us* Research Program is committed to engaging individuals from all walks of life, including those who may not have been asked to participate in research previously, and more than 75 percent of participants are from communities that have been underrepresented in biomedical research. This diversity has the power to revolutionize standards for inclusivity in research and for generalizability of biomedical research findings across many communities, with the ultimate goal of spurring discoveries that bring the promise of precision medicine to all of us. The FY 2020 Budget provides \$313 million to support the *All of Us* Research Program.

Millions of Americans across the Nation have been devastated by opioid misuse, addiction and overdose. To help bring scientific solutions to this crisis, and to provide safe and effective options for the more than 25 million Americans who suffer from daily chronic pain, NIH launched the Helping to End Addiction Long-term (HEAL) Initiative. This Committee made a historic investment of \$500 million in our work in FY 2018 and built upon that investment in FY 2019 with an additional investment of \$500 million. Through HEAL, NIH will build on basic science discoveries to accelerate the development of novel medications and devices to treat all aspects of the opioid addiction cycle, including chronic use, withdrawal symptoms, craving, relapse, and overdose. NIH has launched a series of new studies to test both new non-addictive medications and non-pharmacological strategies for pain management, with the goal of targeted treatments for the millions of Americans living with chronic pain. The FY 2020 Budget continues the special investment of \$500 million that was started in FY 2018, and supports a total of \$1.3 billion for opioids and pain research across NIH, ensuring that we continue to respond aggressively to the crisis of pain and addiction in our communities.

Cancer is the leading cause of death from disease among children and adolescents in the United States. Although substantial progress has been made in the treatment of several types of childhood cancer, progress against other types has been limited. Even when long-term survival is achieved, many survivors of childhood cancer may experience long-term adverse effects from the disease or its treatment. More research is needed to develop new, more-effective, and safer treatments for childhood cancer. The President recently launched an initiative to support pediatric cancer research. The FY 2020 Budget provides \$50 million for a data initiative that will support the development of new, more effective, and safer treatments

for childhood cancers, and will facilitate aggregation of data to create a federated, comprehensive, and shared resource to support childhood cancer research.

First identified in 1981, AIDS is one of humanity's deadliest and most persistent epidemics. Although significant progress has been made in the fight against new infections and AIDS deaths, the HIV/AIDS pandemic continues around the world. The development of a safe and effective HIV vaccine remains a key component to realizing an end to the HIV/AIDS pandemic. The NIH-wide HIV research program will continue to sustain the accomplishments already made and secure future advances to prevent the spread of HIV; improve health outcomes for persons with, at risk for, or affected by HIV; and ultimately to find a cure for HIV. The FY 2020 Budget includes \$6 million for NIH to support the President's Ending HIV Epidemic Initiative. The NIH-funded Centers for AIDS Research and AIDS Research Centers are leveraging critical relationships with local and state public health services, communities, and research institutions to develop and refine evidence-based, community-specific strategies that will help guide this initiative.

The FY 2020 Budget continues to invest in research progress toward the important but scientifically challenging effort to develop a universal influenza vaccine. NIH-supported research is helping advance understanding of how influenza strains emerge, evolve, infect, and cause disease. These research results are informing design of new and improved therapies, diagnostics, and vaccines. Influenza viruses pose an ever-present public health threat and place substantial health and economic burdens on the U.S. and the world. The FY 2020 Budget will accelerate research progress to achieve the end goal of a universal influenza vaccine, which is vital to protecting millions of people from infection and mitigating the public health threat posed by influenza viruses.

NIH is at the vanguard of biomedical research, leading the world in support of groundbreaking science. Thank you again for inviting NIH to testify today. We look forward to answering your questions.