DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

Fiscal Year 2017 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. As you know, I am Francis S. Collins, M.D., Ph.D., and I am the Director of the National Institutes of Health (NIH). It is an honor to appear before you today to present

7 budget request for the NIH, and provide an overview

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Before I discuss our diverse investments in biomedical research and the exciting scientific opportunities on the horizon, I want to thank this Subcommittee for the recent $2 billion boost in the FY 2016 Omnibus Appropriation bill. This investment comes at a time of unprecedented scientific opportunity and we are truly grateful for your leadership.

fundamental knowledge about the nature and behavior of living systems, and to apply that knowledge to enhance human health, lengthen life, and reduce illness and disability. I can report

Nobel Prizes to our grantees, but fosters innovation and ultimately leads to effective ways to treat complex medical conditions.

science is with the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, which continues to address basic neuroscience questions. We are grateful to this subcommittee for its support of this initiative since its launch in FY 2014, and we look forward to ramping this up further in FY 2017. This bold, multi-agency effort to revolutionize our understanding of the human brain will enable the development and use of innovative technologies to produce a clearer, more dynamic picture of how individual cells and neural circuits interact in both time and space. By measuring activity at the scale of neural networks in living organisms, we can begin to decode sensory experience and, potentially, even memory, emotion, and thought. Ultimately, the technologies developed under the BRAIN Initiative may help reveal the underlying pathology in a vast array of brain disorders and provide new therapeutic avenues to treat, cure, and prevent neurological and psychiatric conditions such as

psy, traumatic brain injury, and addiction.

Scientific advances are also accelerating progress toward a new era of personalized medicine.

emergence of computational tools for analyzing large biomedical data sets, precision medicine is poised to usher in a new era in how we treat and diagnose disease. Ramped up funding in FY 2017 will support several activities that are critical to the scope of the PMI Cohort Program, including enrolling and consenting participants, core phenotyping, expanded informatics, building a biorepository, and incorporating the use of wearable sensors.. A cohort of this size will capture data on a wide range of diseases and be large enough to detect genetic and environmental effects that are difficult to discern from research on smaller groups. Scientists will be able to use data from this cohort to identify trends and understand health and disease on a much larger scale, and that will lead to new ideas for diagnostic tests, treatments, and prevention strategies.

A final area of exceptional scientific opportunity I want to highlight today involves one . During his 2016 State of the Union Address, President Obama announced the establishment of the National Cancer Moonshot a bold initiative to tackle this often life-threatening disease. Too many American families know all too well the devastation cancer can bring. More than 1.6 million new cases of cancer will be diagnosed and cancer will kill an estimated 600,000 Americans in 2016. With passionate and principled leadership from Vice President Biden, and in partnership with the Food and Drug Administration (FDA) and other F is launching a bold and promising cancer research initiative to accelerate research to prevent, diagnose, and treat cancer. In FY 2017, $755 million in mandatory funds for new cancer-related activities are proposed at the Department of Health and Human Services (HHS). Within NIH, investments of $680 million will support cutting-edge opportunities, such as prevention and cancer vaccine development, early cancer detection, cancer immunotherapy, genomic analysis of

tumor cells, enhanced data sharing, and new approaches to pediatric cancer. Our sister agency, the FDA, will develop a virtual Oncology Center of Excellence to expedite the development of new diagnostics and therapeutics that will be safe and effective. We are at an inflection point in cancer research, and the science is ready for the concerted new effort this initiative will bring.

While all of these exciting research efforts and scientific opportunities are leading to a much deeper understanding of health and human disease, much more work needs to be done.

To this end, t t request for the NIH is $33.136 billion, $825 million or 2.5 percent above the enacted FY 2016 level. This budget request reflects the

hip in the life sciences. The request highlights investments in innovative research that will advance fundamental knowledge, and speed the development of new therapies, diagnostics, and preventive measures to improve public health, including an additional $100 million to ramp up the PMI Cohort Program to a total of $230 million, an increase of $45 million for the BRAIN Initiative, bringing the total to $195 million, and $680 million for the National Cancer Moonshot.

The FY 2017 budget request will enhance -edge re-11(e)4(a)1n m7(isea)5