

May 18, 2018

**MEMORANDUM**

**TO: Sleep Research Society**

**FR: Dale Dirks and Dane Christiansen**

**RE: FY 2019 Budget Request for the National Institutes of Health [Senate Hearing]**

Yesterday, the Senate Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies (L-HHS) held a hearing to review the Fiscal Year (FY) 2019 funding request and budget justification for the National Institutes of Health (NIH). While only the NIH Director presented testimony, the witness panel consisted of:

- **Dr. Francis S. Collins, M.D., Ph.D.**, Director, NIH
- **Dr. Norman Sharpless, M.D.**, Director, National Cancer Institute (NCI)
- **Dr. Walter Koroshetz, M.D.**, Director, National Institute of Neurological Disorders and Stroke (NINDS)
- **Dr. Anthony Fauci, M.D.**, Director, National Institute of Allergy and Infectious Diseases (NIAID)
- **Dr. Richard Hodes, M.D.**, Director, National Institute on Aging (NIA)
- **Dr. Nora Volkow, M.D.**, Director, National Institute on Drug Abuse (NIDA)

The Subcommittee Chairman, Senator Roy Blunt (R-MO), opened the hearing by calling attention to important investments in NIH that have occurred recently. Specifically, the infusion of \$7 billion in increased funding over the past three fiscal years. Senator Blunt also expressed a personal commitment to medical research and called on his colleagues to continue to prioritize increased NIH funding for FY 2019. Chairman Blunt's opening statement can be found on page 2 of this document.

NIH Director Collins provided brief testimony to the Subcommittee before responding to specific questions. Through his statement, he spoke about recent scientific progress and the importance of support for NIH flagship initiatives (Cancer moonshot, Precision Medicine, etc.). Dr. Collins also expressed his personal interest in advancing the Cures Acceleration Network and better supporting young investigators. The written testimony of Director Collins begins on page 4 of this document.

We will continue to update you as the FY 2019 appropriations process moves forward. The complete hearing, including the question and answer session, can be viewed here: <https://www.appropriations.senate.gov/hearings/hearing-to-review-the-fy2019-budget-request-for-the-national-institutes-of-health>.

**Chairman Roy Blunt Opening Statement  
Committee on Appropriations Subcommittee on Labor, Health and Human Services,  
Education and Related Agencies**

**Hearing to Review the FY2019 Budget Request for the National Institutes of Health**

**May 17, 2018**

*(As prepared for delivery)*

Good morning. Thank you, Dr. Collins and the Institute Directors, for appearing before the Subcommittee today to discuss the National Institutes of Health's FY2019 budget request.

My support for medical research is clear. During my time as Chairman of this Subcommittee, I am proud to have increased funding for the National Institutes of Health by 23 percent, or \$7 billion, in the last three years. This investment nearly tripled funding for Alzheimer's research, started the Precision Medicine Initiative, and targeted resources to such revolutionary projects as the BRAIN Initiative, a universal flu vaccine, and efforts to combat antibiotic resistance.

I stand by an investment in NIH because it has provided millions of Americans and their families with hope. NIH-funded research has raised life expectancy and vastly improved the quality of life for all Americans. In addition, it has lowered health care costs and spurred economic growth by supporting jobs in research and generating biomedical innovations.

However, I understand that it is difficult to always quantify success in medical research. Both this Administration and the last one has proposed cuts to NIH. There is rarely a straight line to success. Not every grant funded will result in a breakthrough. However, this is not the time to abandon our commitment to medical research. The advances made in just the past three years is example enough to show why funding for the NIH is so important.

Three years ago, West Africa faced one of the most devastating infectious disease outbreaks of the last 50 years – Ebola. This disease killed more than 11,000 people in Africa, and became a major public health threat in the United States. Now, the Democratic Republic of Congo faces another Ebola outbreak. In response, the World Health Organization will deploy an Ebola vaccine that appears to provide protection for two years. This has been made possible, in part, due to the support of the National Institutes of Health.

Earlier this month, the NIH launched enrollment into the All of Us study which will collect health information from one million Americans. All of Us has the potential to unlock precision medicine

for the majority of diseases we suffer from today. This initiative will change our health system from one-size-fits-all to personalized medicine.

It is also important to point out discoveries in the revolutionary work of drug repurposing – testing current drugs we know are safe for other uses. There is a current clinical trial targeting the most common of adult leukemia with a drug first approved to treat arthritis more than 25 years ago.

These are just a few examples of how investing in medical research can save lives and shows that this is not the time to back away from our support. As further evidence of the benefits of these investments, the National Academy of Sciences published a report in February that showed that NIH funding contributed to every one of the 210 new drugs approved by the Food and Drug Administration (FDA) from 2010-2016. Let me say that again. Every single drug approved by the FDA over a six-year period had some NIH research associated with it.

The increased funding over the past three years, has also allowed the best researchers in the country to have their research funded to discover the next breakthrough. I am proud to say that the number of grants have increased 2,200 during this period. We finally are in a pattern of long-term investment in medical research.

I have worked closely with Senator Murray and other Members of the Subcommittee to prioritize our commitment to NIH. I know that we will continue to do so this year.

Thank you for being here today.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

Hearing on FY 2019 National Institutes of Health Budget Request

Witness appearing before the

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

Francis S. Collins, M.D., Ph.D.

Director, National Institutes of Health

Accompanied by

Anthony S. Fauci, M.D.

Director, National Institute of Allergy and Infectious Diseases

Richard J. Hodes, M.D.

Director, National Institute on Aging

Walter J. Koroshetz, M.D.

Director, National Institute of Neurological Disorders and Stroke

Norman E. "Ned" Sharpless, M.D.

Director, National Cancer Institute

Nora Volkow, M.D.

Director, National Institute on Drug Abuse

May 17, 2018

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 diverse investments in biomedical research and some of the exciting scientific opportunities on the horizon, I want to thank this Subcommittee for your sustained commitment to NIH to ensure that our nation remains the global leader in biomedical research and advances in human health.

I want to personally express gratitude to this Subcommittee and its leadership for its support in crafting and passing the FY 2018 Consolidated Appropriations Bill. The FY 2018 Omnibus provides an incredible increase of \$3 billion for NIH, including funding for opioid- and pain-related research, Alzheimer's disease, antimicrobial resistance, and development of a universal influenza vaccine. NIH has immediately set to work to invest those additional resources into groundbreaking research.

As the nation's premier biomedical research agency, NIH's mission is to seek 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. As some of you have witnessed first-hand on your visits to NIH, our leadership and employees carry out our mission with passion and commitment. This extends equally to the hundreds of thousands of individuals whose research and training we support, located in every State of this great country, and where 81 percent of our budget is distributed.

The FY 2019 Budget provides \$34.8 billion for NIH to fund the highest priority scientific discoveries while also maintaining fiscal stewardship of Federal resources. This Budget will consolidate research functions across the Department, optimize available

grant dollars to fund research, invest in NIH's buildings and facilities, and support NIH priority areas including combatting the opioid epidemic, advancing Precision Medicine, and investing in translational research.

The FY 2019 Budget consolidates HHS research programs into three new institutes within the NIH. The Budget provides \$380 million for the activities of the Agency for Healthcare Research and Quality (AHRQ), consolidated into the National Institute for Research on Safety and Quality. The National Institute for Occupational Safety and Health (NIOSH), including the Energy Employees Occupational Illness Program (EEOCIPA), currently administered by the Centers for Disease Control and Prevention, and the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), currently administered by the Administration for Community Living, are also proposed for consolidation into the NIH.

America's continuing leadership in conducting biomedical research requires infrastructure and facilities that are safe, compliant with all laws and regulations, and conducive to cutting edge research and research support. NIH owns 281 facilities, including a research hospital, laboratories, and offices. NIH's Backlog of Maintenance and Repair exceeds \$1.8 billion. NIH is currently working with the National Academies of Sciences, Engineering and Medicine to identify NIH facilities and infrastructure most in need of repair. We look forward to providing that report to the Committee as soon as it is final.

The FY 2019 Budget makes much needed investments in NIH's facilities. The Budget proposes \$200 million to support multiple biomedical research infrastructure priorities. The FY 2019 Budget will allow NIH to continue to repair and upgrade deteriorated infrastructure. In a recent analysis requested by this Committee, the condition

of NIH laboratories ranks near the lowest in the federal government due to the high likelihood of floods, power outages, and mechanical failures. Items on the backlog list include: install steam and chilled water distribution systems; conduct structural repairs to older buildings; upgrade plumbing systems; repair elevators; upgrade heating, ventilating, and air conditioning systems; replace deteriorated electrical systems, and more. In addition, due to the age and use of NIH facilities, NIH must invest funds in removing contaminants and hazardous waste before construction or capital repairs can begin in most of its buildings. The Budget will allow NIH to track what contaminants are being cleared from each of our buildings, which will ultimately help NIH do a better job of anticipating the cost and time required to begin new projects in existing buildings.

Truly exciting, world class science is taking place. I would like to provide just a few examples of the depth and breadth of the amazing research the FY 2019 Budget supports across the Institutes and Centers of NIH.

Over the past 15 years, communities across our Nation have been devastated by increasing prescription and illicit opioid misuse, addiction, and overdose. This Committee made a historic investment of \$500 million in our work in FY 2018, and the FY 2019 Budget builds on that with an investment of \$850 million to support a range of activities to advance research on pain and addiction. NIH has and will continue to support cutting-edge research on pain, opioid misuse, addiction, and overdose. Drug addiction is a complex neurological condition, driven by many biological, environmental, social, and developmental factors. Continued research will be key to understanding the crisis and informing future efforts. Pain is an equally complex condition affecting millions of Americans. NIH will: explore new formulations for overdose reversal medications capable of combatting powerful synthetic

opioids; search for new options for treating addiction and maintaining sobriety; continue to research how best to treat babies born in withdrawal through our ACT NOW trial; develop biomarkers to objectively measure pain; build a clinical trial network for pain research; and attempt to find non-addictive and non-pharmacological approaches to chronic pain. Thanks to your support, all hands are on deck at NIH for this public health crisis.

Another exciting area of continued investment in FY 2019, building on this Committee's long-standing support, is Precision Medicine. On May 6th, NIH officially launched the national roll-out of the *All of Us* Research Program. This program will partner with one million or more people across the United States to provide the most diverse biomedical data resource of its kind and gain unprecedented insights into the biological, environmental and behavioral influences of disease. The FY 2019 Budget, including resources from the 21<sup>st</sup> Century Cures Act, supports the ramp up of the program. After pilot testing system and forming partnerships with community organizations across the country, national enrollment is about to begin. *All of Us* will not focus on only one specific disease. Rather, it will be a national data resource to inform many research studies on a wide variety of health conditions. The data provided by one million participants will provide opportunities for researchers—including academics and citizen scientists—who want to understand how and why different people experience certain diseases and conditions while others do not, and why many people respond differently to treatments and prevention methods that will help accelerate medical breakthroughs.

NIH is the largest funder of basic biomedical research in the United States, providing a critical research foundation for both the public and private sector. Building on that solid foundation of basic research, NIH also supports translational research that turns observations in the laboratory, clinic, and community into interventions that improve the health of individuals and the public, whether those interventions be diagnostics, therapeutics, medical procedures, or behavioral changes. For example, Congress created the Cures Acceleration Network (CAN) at the National Center for Advancing Translational Sciences (NCATS) to advance the development of high-need cures and to reduce significant barriers between research discovery and clinical trials. For example, CAN currently supports NCATS' Tissue Chip for Drug Screening program, which was designed to revolutionize the process for predicting drug safety. Researchers developing miniaturized platforms that could support miniature models of living organs — such as the lung, liver, and heart — that could be integrated into connected organ systems. New Tissue Chip initiatives were funded in FY 2017 and this support will continue into FY 2019. CAN uses flexible research awards using the special authorization called other transaction authority to attract non-traditional government partners, and to expand, modify, and, if needed, discontinue activities to meet program needs. The FY 2019 Budget will allow NCATS, through CAN, to continue to invest in high-risk, high reward initiatives designed to address significant scientific and technical challenges that hinder translational research.

One of my personal priorities is developing the next generation of talented biomedical researchers. Last year, I shared with the Committee NIH's plans to build on our support for early-stage investigators through a new initiative known as the Next Generation Researchers Initiative. The FY 2019 Budget includes a dedicated fund of \$100 million in the Office of the

Director to incentivize additional Institute and Center support for these researchers. NIH remains committed to the development, support, and retention of our next generation of investigators.

We have never witnessed a time of greater promise for advances in medicine than right now. Your support has been critical, and will continue to be. Thank you again for inviting NIH to testify today. We look forward to answering your questions.