

**Statement by the Ad Hoc Group for Medical Research on
FY 2018 Appropriations for the National Institutes of Health
Submitted for the record on March 8, 2017, to the
Subcommittee on Labor, Health and Human Services, Education and Related Agencies
Committee on Appropriations
United States House of Representatives**

The Ad Hoc Group for Medical Research is a coalition of more than 200 patient and voluntary health groups, medical and scientific societies, academic and research organizations, and industry. We appreciate the opportunity to submit this statement in support of strengthening the federal investment in biomedical, behavioral, social, and population-based research conducted and supported by the National Institutes of Health (NIH).

The Ad Hoc Group is deeply grateful to the Subcommittee for its long-standing and bipartisan leadership in support of NIH, as demonstrated by the \$2 billion increase provided in the final fiscal year (FY) 2016 spending bill, and by the Subcommittee's tireless efforts to continue this budget trajectory with a substantial increase for NIH in FY 2017. As articulated in a letter last month from 260 Ad Hoc Group member organizations to the President and House and Senate leaders, the Ad Hoc Group strongly supports enactment of a final FY 2017 spending bill with \$34.1 billion for NIH without further delay.

We believe that science and innovation are essential if we are to continue to meet current and emerging health challenges, improve our nation's physical and fiscal health, and sustain our leadership in medical research. In order to remain a global leader in accelerating the development of life-changing cures, pioneering treatments, and innovative prevention strategies, it is essential that Congress sustain predictable increases in the NIH budget.

In FY 2018, the Ad Hoc Group recommends an increase of at least \$2 billion above FY 2017 for NIH, in addition to funds included in the 21st Century Cures Act for targeted initiatives. This funding level would enable real growth over biomedical inflation as an important step to ensuring stability in the nation's research capacity over the long term. Moreover, our recommendation would help advance the scientific momentum envisioned by the 21st Century Cures Act – enacted with broad bipartisan support – in which the Innovation Account supplements the agency's base budget. Securing a reliable, robust budget trajectory for NIH will be key in positioning the agency – and the patients who rely on it – to capitalize on the full range of research in the biomedical, behavioral, social, and population-based sciences.

We share the bipartisan enthusiasm in Congress for the potential that NIH-supported research holds in improving the health and well-being of all Americans, in bolstering local and regional economies, and in strengthening America's research prowess relative to our global competitors. We look forward to working with appropriators to secure an increase of \$2 billion in FY 2018 for NIH as the next step to ensuring stability in the nation's research capacity over the long term.

NIH: A Public-Private Partnership to Save Lives and Provide Hope

The partnership between NIH and America's scientists, medical schools, teaching hospitals, universities, and research institutions is a unique and highly-productive relationship, leveraging the full strength of our nation's research enterprise to foster discovery, improve our

understanding of the underlying cause of disease, and translate this knowledge into the next generation of diagnostics, therapeutics, and other clinical innovations. More than 80 percent of the NIH's budget is competitively awarded through more than 57,000 research and training grants to more than 300,000 researchers at over 2,500 universities and research institutions located in every state and D.C.

The federal government has an essential and irreplaceable role in supporting medical research. No other public, corporate or charitable entity is willing or able to provide the broad and sustained funding for the cutting edge basic research necessary to yield new innovations and technologies of the future.

NIH has supported biomedical research to enhance health, lengthen life, and reduce illness and disability for more than 100 years. The following are a few of the many examples of how NIH research has contributed to improvements in the nation's health.

- NIH-supported researchers partnered with a pharmaceutical company to produce a naloxone nasal spray, the first easy-to-use, non-injectable version of a life-saving treatment for opioid or heroin overdoses. NIH-supported researchers collaborated with the pharmaceutical industry to develop the drug buprenorphine, the first drug for opioid addiction that could be prescribed in a doctor's office instead of requiring daily visits to a clinic.
- The death rate for all cancers combined has been declining since the early 1990s for adults and since the 1970s for children. Overall cancer death rates have dropped by about 1.5 percent per year, or nearly 15 percent in total from 2003—2012. Research in cancer immunotherapy has led to the development of several new methods of treating cancer by restoring or enhancing the immune system's ability to fight the disease. As researchers develop new approaches to overcoming tumor avoidance of immune destruction and new methods for identifying antigens on tumor cells that can be targeted most effectively, immunotherapy is becoming an integral part of precision medicine.
- Deaths from heart disease fell 67.5 percent from 1969 to 2013, through research advances supported in large part by NIH. The Framingham Heart Study and other NIH-supported research have identified risk factors for heart disease, such as cholesterol, smoking, and high blood pressure. This work has led to new strategies for preventing heart disease.
- Since 1950, the stroke mortality rate has decreased by 79 percent, due in part to NIH-funded research on treatments and prevention.
- Despite the increasing prevalence of diabetes in the U.S., from 1969 to 2013 the death rate for adults with diabetes declined by 16.5 percent. Between 1990 and 2010, the rates of major diabetes complications dropped dramatically, particularly for heart attacks, which declined by 68 percent, and stroke, which declined by 53 percent. These improvements are due largely to clinical trials supported by NIH. NIH's Diabetes Prevention Program has shown that lifestyle changes, such as diet and physical activity, can lower the risk of developing type 2 diabetes by 58 percent in adults at high risk for the disease.

- Thanks to an unprecedented collaborative effort between NIH and industry, today, treatments can suppress HIV to undetectable levels, and a 20-year-old HIV-positive adult living in the United States who receives these treatments is expected to live into his or her early 70s, nearly as long as someone without HIV. Since the mid-1990s, HIV testing and prevention strategies based on NIH research have resulted in a more than 90 percent decrease in the number of children perinatally infected with HIV in the United States.
- In 1960, 26 of every 1,000 babies born in the United States died before their first birthday. By 2013, that rate had fallen to under 6 per 1,000 babies, thanks in large part to NIH research on reducing preterm births, neonatal mortality, and other complications.
- The haemophilus influenza type B (Hib) vaccine has reduced the cases of Hib, once the leading cause of bacterial meningitis in children, by more than 99 percent.
- As a result of NIH efforts, nearly all infants born in U.S. hospitals in 2010 were screened for hearing loss, allowing them to get hearing aids or cochlear implants during their developmental years when they will be most helpful. Studies have shown that screening and implantation before the age of 18 months allows more than 80 percent of children with hearing loss to join mainstream classes with their normal-hearing peers.
- Deep brain stimulation is used to help relieve symptoms of Parkinson's disease and Obsessive Compulsive Disorder, thanks in part to NIH-funded research, and is currently being tested in other neuropsychiatric conditions, such as treatment-resistant depression and dementia.
- In the mid-1970s, burns that covered even 25 percent of the body were almost always fatal. Today, people with burns covering 90 percent of their bodies can survive. NIH-funded research on wound cleaning, skin replacement, infection control, and other topics has greatly improved the chances of surviving catastrophic burns and traumatic injuries.

For patients and their families, NIH is the “National Institutes of Hope.”

NIH is the world's premier supporter of merit-reviewed, investigator-initiated basic research. This fundamental understanding of how disease works and insight into the cellular, molecular, and genetic processes underlying life itself, including the impact of social environment on these processes, underpin our ability to conquer devastating illnesses. The application of the results of basic research to the detection, diagnosis, treatment, and prevention of disease is the ultimate goal of medical research. Ensuring a steady pipeline of basic research discoveries while also supporting the translational efforts necessary to bring the promise of this knowledge to fruition requires a sustained investment in NIH.

Sustaining Scientific Momentum Requires Sustained Funding

Despite the increase in FY 2016, over the past decade, NIH has nearly 20 percent of its budget after inflation, significantly impacting the nation's ability to sustain the scientific momentum that has contributed so greatly to our nation's health and our economic vitality. The leadership and

staff at NIH and its Institutes and Centers have engaged patient groups, scientific societies, and research institutions to identify emerging research opportunities and urgent health needs, and have worked resolutely to prioritize precious federal dollars to those areas demonstrating the greatest promise. Sustained predictable increases in NIH funding are needed if we are to continue to take full advantage of these opportunities to accelerate the development of pioneering treatments and innovative prevention strategies.

One long-lasting potential impact of the past decade is on the next generation of scientists, who has seen training funds slashed and the possibility of sustaining a career in research diminished. The continued success of the biomedical research enterprise relies heavily on the imagination and dedication of a diverse and talented scientific workforce. Of particular concern is the challenge of maintaining a cadre of clinician-scientists to facilitate translation of basic research to human medicine. NIH supports many innovative training programs and funding mechanisms that foster scientific creativity and exploration. Additional funding is needed if we are to strengthen our nation's research capacity, ensure a biomedical research workforce that reflects the racial and gender diversity of our citizenry, and inspire a passion for science in current and future generations of researchers.

NIH is Critical to U.S. Competitiveness

Our country still has the most robust medical research capacity in the world, but that capacity simply cannot weather repeated blows such as persistent below-inflation funding levels and sequestration cuts, which jeopardize our competitive edge in an increasingly innovation-based global marketplace.

Other countries have recognized the critical role that biomedical science plays in innovation and economic growth and have significantly increased their investment in biomedical science. This shift in funding is creating an innovation deficit in the U.S. and raises the concern that talented medical researchers from all over the world, who once flocked to the U.S. for training and stayed to contribute to our innovation-driven economy, are now returning to better opportunities in their home countries. We cannot afford to lose that intellectual capacity, much less the jobs and industries fueled by medical research. The U.S. has been the global leader in medical research because of Congress's bipartisan recognition of NIH's critical role. To continue our dominance, we must reaffirm this commitment to provide NIH the funds needed to maintain our competitive edge.

NIH: An Answer to Challenging Times

The research supported by NIH drives not only medical progress but also local and national economic activity, creating skilled, high-paying jobs and fostering new products and industries. Multiple studies have found that NIH investments catalyze increases in private sector investment. For example, a \$1 increase in public basic research stimulates an additional \$8.38 investment from the private sector after 8 years. Similarly, a \$1 increase in public clinical research stimulates an additional \$2.35 investment from the private sector after 3 years.

Additionally, according to a report released by United for Medical Research, a coalition of scientific advocates, institutions and industries, in 2015, NIH-funded research supported an

estimated 350,000 jobs all across the United States and generated more than \$60 billion in new economic activity.

The Ad Hoc Group's members recognize the tremendous challenges facing our nation's economy and acknowledge the difficult decisions that must be made to restore our country's fiscal health. Nevertheless, we believe strongly that NIH is an essential part of the solution to the nation's economic restoration. Strengthening our commitment to medical research, through robust funding of the NIH, is a critical element in ensuring the health and well-being of the American people and our economy.

Therefore, for FY 2018, the Ad Hoc Group for Medical Research recommends that NIH receive at least a \$2 billion increase over FY 2017, in addition to funds included in 21st Century Cures for targeted initiatives, as the next step toward a multi-year increase in our nation's investment in medical research.