Statement by the Ad Hoc Group for Medical Research on FY 2023 Appropriations for the National Institutes of Health Submitted for the Record to the Senate Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies – May 11, 2022

The Ad Hoc Group for Medical Research is a coalition of nearly 400 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) through a recommendation of at least \$49.1 billion for NIH's base program level budget in FY 2023.

As a result of the strong, bipartisan vision of the House and Senate Labor-HHS-Education Subcommittees over the last seven years, Congress has helped the agency regain some of the ground lost after years of effectively flat budgets. That renewed investment in NIH has advanced discovery toward promising therapies and diagnostics, reenergized existing and aspiring scientists nationwide, and restored hope for patients and their families. As the Subcommittee has recognized, to remain a global leader in accelerating the development of innovative prevention strategies, advanced diagnostics, pioneering treatments, and life-changing cures, , and in this time of unprecedented scientific opportunity, it is essential that Congress sustain long-term robust increases in the NIH budget.

In FY 2023, the Ad Hoc Group for Medical Research supports at least \$49.048 billion for the NIH base program level budget, which would represent an increase of \$4.1 billion over the comparable FY 2022 funding level (an increase of \$3.5 billion or 7.9% in the NIH appropriation plus funding from the 21st Century Cures Act for specific initiatives). Importantly, the Ad Hoc Group strongly urges lawmakers to ensure that any funding for the new Advanced Research Projects Agency for Health (ARPA-H) supplement our \$49 billion recommendation for NIH's base budget, rather than supplant the essential foundational investment in the NIH. This funding level, supported by nearly 400 stakeholder organizations, would provide real growth in the base budget above inflation, expanding NIH's capacity to support promising science in all disciplines. In addition, the coalition supports the president's proposal to supplement NIH's budget with additional mandatory funding to speed the pace of pandemic response and readiness.

Importantly, we also recommend a funding allocation for the Labor-HHS-Education Subcommittee in FY 2023 that allows for the necessary investment in NIH and other agencies that promote the health of our nation. 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.

NIH: A 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 translate this knowledge into the next generation of diagnostics, therapeutics, and cures. More than 80% of the NIH's budget is competitively awarded through nearly 50,000 research and training grants to more than 300,000 researchers at over 2,500 universities and research institutions located in every state, Washington, D.C., and U.S. territories. 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, respond to emerging health threats, and reduce illness and disability for more than 100 years. For patients and their families, NIH is the "National Institutes of Hope." The following are a few of the many examples of how NIH research has contributed to improvements in the nation's health.

- NIH-funded basic research laid the groundwork for the novel mRNA vaccine technology used in the first two FDA approved SARS-CoV-2 vaccines. Vaccines continue to be one of our most cost-effective public health tools with every \$1 spent on routine childhood vaccinations estimated to save \$5 in direct costs, and \$11 in broader costs to society.
- In 2020, the gene editing tool CRISPR was successfully used to treat the inherited blood disorders sickle cell anemia and beta-thalassemia, only eight years after the primordial bacterial immune system was harnessed for therapeutic use in the laboratory.
- Following nearly three decades of NIH-funded research into novel mechanisms of drug action, breakthroughs in the treatment of depression came in 2019 with two new FDAapproved drugs — one for treatment-resistant depression and the first ever treatment for postpartum depression.
- In 2007, induced pluripotent stem cells (iPSC) were discovered when adult cells were reengineered into early non-differentiated versions of themselves. In 2019, the National Eye Institute launched a first-in-human clinical trial to test the safety of a novel patient-specific iPSC therapy to treat the most common form of Age-related Macular Degeneration, and the leading cause of vision loss in the age 65+ population.
- NIH-supported researchers continue to work toward strategies to better prevent, identify, and treat pain and substance use disorders through the HEAL (Helping to End Addiction Longterm) Initiative. HEAL aims to support research into new, non-addictive medication and to establish public and private partnerships to develop best practices in communities.
- Today, treatments can suppress HIV to undetectable levels, and a 20-year-old HIV-positive adult living in the U.S. who receives these treatments is expected to live into his or her early 70s, nearly as long as someone without HIV.
- The death rate for all cancers combined has declined in adults since the early 1990s and since the 1970s for children. The cancer death rate for men and women combined fell 32% from its peak in 1991 to 2019, the most recent year for which data were available.

Sustaining Scientific Momentum Requires Sustained Funding Growth. The leadership and staff at NIH and its Institutes and Centers have engaged the broader community to identify emerging research opportunities and urgent health needs and to prioritize precious federal dollars to areas demonstrating the greatest promise. Sustained robust 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 investments in NIH is on the next generation of scientists. Sustained increases in NIH funding over the last seven years have allowed NIH to

more than double the investment in early stage investigators (ESIs). In 2015, NIH only funded about 600 grants for ESIs and the career outlook for early career researchers seemed grim. In FY 2021, NIH was able to fund more than 1,500 grants for ESIs, reinvigorating the spirits of researchers in the biomedical workforce. Sustained increases are needed to allow NIH to continue support of new talent and innovation in medical research.

Even with recent investments in NIH, nearly 4 of every 5 research ideas that are proposed to NIH every year cannot be funded. Additional funding is needed if we are to strengthen our nation's research capacity, ensure a medical research workforce that reflects the racial, gender, and geographic 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; however, other countries have significantly increased their investment in biomedical science, which leaves us vulnerable to the risk that talented medical researchers from all over the world may return 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. Research supported by NIH drives local and national economic activity, creating skilled, high-paying jobs and fostering new products and industries, and catalyzes increases in private sector investment. A \$1 increase in public *basic* research stimulates an additional \$8.38 investment from the private sector after eight years. A \$1 increase in public *clinical* research stimulates an additional \$2.35 in private sector investments after three years. According to a United for Medical Research report, in FY 2021, NIH-funded research supported more than 552,000 jobs across the U.S. and generated more than \$94 billion in economic activity.

The Ad Hoc Group's members recognize the tremendous challenges facing our nation and acknowledge the difficult decisions that must be made to restore our country's fiscal health. Robust funding of the NIH, and strengthening our commitment to medical research, is a critical element in ensuring the health and well-being of the American people and our economy. Therefore, for FY 2023, the Ad Hoc Group for Medical Research recommends that NIH receive at least \$49.048 billion in base funding to advance the foundational research NIH supports and continue the momentum in our nation's investment in medical research, and that any funding for ARPA-H supplement our \$49 billion recommendation for NIH's base budget, rather than supplant the essential foundational investment in the NIH.