**Statement for the Record Submitted by the Association of American Medical Colleges to the Senate Appropriations Committee for the hearing titled, "Biomedical Research: Keeping America's Edge in Innovation."**
**April 30, 2025**

The Association of American Medical Colleges (AAMC) appreciates the opportunity to submit this statement for the record for the Senate Appropriations Committee's April 30, 2025, hearing, "Biomedical Research: Keeping America's Edge in Innovation." The AAMC thanks the Committee for its longstanding bipartisan leadership in recognizing investments in biomedical research as an urgent national priority, and we applaud the hearing's focus on maintaining the nation's leadership role in biomedical research and highlighting the importance of federal investments in biomedical research across federal agencies and programs.

AAMC's members are all 160 U.S. medical schools accredited by the Liaison Committee on Medical Education; 12 accredited Canadian medical schools; nearly 500 academic health systems and teaching hospitals, including Department of Veterans Affairs medical centers; and more than 70 academic societies. Through these institutions and organizations, the AAMC leads and serves America's medical schools, academic health systems and teaching hospitals, and the millions of individuals across academic medicine, including more than 210,000 full-time faculty members, 99,000 medical students, 162,000 resident physicians, and 60,000 graduate students and postdoctoral researchers in the biomedical sciences. Through the Alliance of Academic Health Centers International, AAMC membership reaches more than 60 international academic health centers throughout five regional offices across the globe.

The AAMC's members conduct groundbreaking biomedical research that improves our knowledge of human health and promotes the development and distribution of treatments from bench to bedside to community. The AAMC supports the entire spectrum of medical research from basic discovery and translational science to clinical and population health research, research policies and regulations that promote robust and ethical science and minimize administrative burden, and a well-trained biomedical research workforce across all career stages. Congress's longstanding support of the biomedical research enterprise – led in large part by this Committee with bipartisan support – has allowed innovation to thrive, leading to life-saving treatments for patients, generating real economic returns, and benefiting communities across the nation. In an increasingly competitive global research and development landscape, the AAMC believes it is crucial to maintain America's competitive edge in biomedical research, which will allow the latest breakthroughs to take place in the U.S., bolstering our national security, health, and long-term economic prosperity.

The AAMC supports robust investment in the full range of federal science agencies. Given the hearing's focus on biomedical research, we highlight specifically in this statement four agencies that play a leading role in driving discovery toward cures that benefit patients everywhere.

**National Institutes of Health (NIH)**

Congress's longstanding bipartisan support for medical research has contributed greatly to improving the health and well-being of all. The foundation of knowledge built through NIH-funded research drives medical innovation that improves health through new and better diagnostics, improved prevention strategies, and more effective treatments. A total of 83% of the NIH's budget is competitively awarded through a merit-based process to more than 300,000 researchers at over 2,500 universities, medical schools, and research institutions located in every state, Washington, D.C., and U.S. territories. At least 60% of that life-saving research supported by the NIH takes place at medical schools and teaching hospitals, where scientists, clinicians, fellows, residents, medical students, and trainees work together to improve the lives of Americans through research.

NIH has supported biomedical research to enhance health, lengthen life, respond to emerging health threats, and reduce illness for more than 100 years. Nearly every medication, diagnostic, and other intervention in practice today has its origins in NIH-funded research. Today, NIH investment takes place in every state and in nearly every congressional district. NIH seeks to drive medical breakthroughs that will benefit patients nationwide, advance potential treatments and preventive strategies for cancer and Alzheimer's, improve maternal health, and develop countermeasures for persistent or emerging health threats. In 2024 alone, NIH research supported the development of a blood test that identified Alzheimer's disease correctly in older adults with nearly 90 percent accuracy. Such tests assist in speedier diagnoses and improve access to earlier treatments - saving lives. NIH-supported researchers developed a brain-computer interface that allowed a man to communicate after his ability to speak was impaired by amyotrophic lateral sclerosis (ALS). NIH-supported research also developed 3D maps of cancer which have provided critical information on how tumors develop, spread, and respond to treatments.

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. This unique and highly productive relationship lays the foundation for improved health and quality of life and strengthens the nation's long-term economy and global competitiveness. It brings together government investment, academic expertise, and private sector innovation, creating a research enterprise that drives scientific discovery, supports job growth, nurtures future generations of scientists, and accelerates the translation of ideas into real-world solutions that improve patient health.

Research supported by NIH drives local and national economic activity, creating skilled, high-paying jobs, fostering new products and industries, and catalyzing increases in private sector investment. A $1 increase in federally-funded 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. NIH-funded basic research fuels the entry of new drugs into the market and provides a positive return of public investment of 43%. According to a United for

Medical Research report, in FY 2024, NIH-funded research supported nearly 408,000 jobs across the U.S. and generated more than $94 billion in economic activity. While the U.S. still has the most robust medical research capacity in the world, 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 well-trained scientists, jobs, and industries fueled by medical research.

Similarly, the U.S. has been the global leader in medical research because of Congress's bipartisan recognition of NIH's critical role in supporting the research enterprise. Reducing federal investment in biomedical research not only jeopardizes innovation but also opens the door for countries like China to overtake and surpass us. China is catching up – in 2021, U.S. gross domestic expenditures on research and development (R&D) increased by 10% compared to 2020, while China increased their domestic R&D expenditures by 14%. Additionally, the Chinese government announced a $52 billion investment in R&D in 2024. In contrast, the U.S. cut total R&D investment by 2.7% in 2024. Continued support for robust and predictable investments would help expand the potential for new cures and other interventions for patients and their families, fully capitalize on scientific opportunity, and ensure that the U.S. remains the global leader in medical research. Underinvestment in research supporting cures and treatments for patients not only harms the health of Americans, but also weakens our international leadership and status as a premier destination for global research talent.

In FY 2026, the AAMC joins more than 500 partners in supporting the Ad Hoc Group for Medical Research recommendation that Congress provide at least $51.3 billion for NIH's foundational work, which would represent an increase of 9.0% over the comparable FY 2024 funding level. This funding level would allow NIH's base budget to keep pace with the biomedical research and development price index (BRDPI) and allow meaningful growth of roughly 6% above inflation.

In addition to ensuring robust investment in NIH's base budget, the AAMC believes that uninterrupted and stable research funding from the NIH to scientists and research institutions is essential in ensuring continuous progress in tackling health challenges. Disruptions in such support affect research and researchers seeking cures for cancer, Alzheimer's, diabetes, and all the other existing and emerging health threats American face. We are concerned that suspensions of current research funding and unclear organizational changes have introduced uncertainty and confusion that will be challenging for the scientific community to overcome. While we share the interest in increasing efficiencies, we caution that the actions to date will be counterproductive. Securing a reliable, robust budget trajectory without disruptions is key in positioning the agency – and the patients who rely on the research it funds – to capitalize on the full range of research in the biomedical, behavioral, social, and population-based sciences. We must continue to strengthen our nation's research capacity, solidify our global leadership in research, strengthen a biomedical research workforce that reflects the needs of all Americans, and inspire a passion for science in current and future generations of researchers.

**Advanced Research Projects Agency for Health (ARPA-H)**

In addition to ensuring robust investments in NIH's base budget, AAMC urges Congress to continue to supplement NIH's groundbreaking basic research discoveries with sustained investments in ARPA-H. The AAMC urges Congress to provide at least $1.7 billion, to be available through FY 2028, for ARPA-H, which serves as a vital component of ensuring U.S. leadership in biomedical research by supporting transformative health breakthroughs for the benefit of all Americans.

ARPA-H takes an aggressive, entrepreneurial approach to developing new treatments, services, and technologies to improve health outcomes. The agency focuses on support for revolutionary rather than incremental ideas and complements the efforts of the commercial sector by taking on challenges that industry sees as too risky. ARPA-H has supported nearly 150 total projects led by teams of scientists, engineers, and entrepreneurs from across the country. Efforts funded by ARPA-H are working to create new biomaterials to help joints heal themselves, rapidly manufacture 3D models of tumors, design implantable continuous cancer cell monitoring technologies, develop new therapies that use our body's own electrical signals to treat metabolic disorders such as diabetes, build portable high-resolution diagnostics for chronic eye diseases, and democratize clinicians' and patients' access to biomedical research data. These and other big bets taken by ARPA-H could pay massive dividends for both the health and economy of the United States.

**Department of Veterans Affairs (VA) Medical and Prosthetic Research Program**

Medical schools and teaching hospitals have partnered with the Department of Veterans Affairs (VA) for over 75 years, dating back to the end of World War II. Through the missions of medical education, research, and clinical care, the AAMC and America's medical schools and teaching hospitals will continue to build on this important partnership to ensure veterans receive the health care they deserve.

The VA Office of Research and Development and its dedicated staff play a key role in advancing the health and care of veterans and are uniquely positioned to continue to lead in delivering transformational outcomes for those who have served. As part of the largest integrated health care system in the United States, VA Research and Development has the access needed to study the causes and most effective treatments of conditions commonly afflicting our servicemembers and veterans. In this way, while the work NIH supports is an important complement to VA-funded research, it is not a substitute.

VA research seeks to improve the physical and mental wellbeing of our nation's veterans and endeavors to extend their life expectancy. VA research projects have included studies on the following: addressing post-traumatic stress disorder (PTSD) and addiction in combat veterans; improving lung cancer screening access to VA medical centers across the nation; expanding sequencing research to identify high consequence infectious diseases that impact the veteran populations; and renewing research on the interaction of stress and mild traumatic brain injuries. VA Research and Development have also funded clinical trials for experimental treatments for bone regeneration and spinal cord injuries as well as precision medicine for several cancer types.

Prosthetic research studies included those that sought to improve lower limb, foot, and ankle prosthetics and to better understand the unique challenges faced by women using prosthetics.

The AAMC joins the Friends of VA Medical Care and Health Research (FOVA) recommendation of $1.2 billion for the VA Medical and Prosthetic Research Program in FY 2026. It is imperative that Congress demonstrates a continued commitment to VA research and encourages a health care system for our nation's veterans that is as innovative and effective as they are. Ensuring that the VA's research enterprise is a leader in innovation for our veterans and all Americans not only contributes to veterans' health but also makes our nation more secure and competitive on the global stage.

**Department of Defense (DOD) Congressionally Directed Medical Research Program (CDMRP)**

The CDMRP fosters novel approaches to biomedical research, funding research that takes place at AAMC-member medical schools and other research institutions to protect the men and women who serve in our Armed Forces, military families, veterans, and civilian populations from a wide range of medical conditions and health challenges. Sustained investment is needed to ensure that our country is prepared to meet current and future public health-related threats and challenges to our national security.

The highly innovative research portfolio supported by the CDMRP fuels scientific discovery by funding high impact research not sponsored by the NIH, VA, and other federal agencies. Many of the programs' award mechanisms propel the exploration of revolutionary ideas and concepts. Programs focus on the potential of having a significant impact upon both their respective fields of research and the health and well-being of the men and women in the U.S. Armed Services. Defense health research programs are worthy of continued federal support because they focus directly on relevant DOD-prevalent conditions. Like VA research, CDMRP research is complementary – and not duplicative – of other federal research. CDMRP research is cutting-edge and generates economic growth across the country with estimates that for every dollar awarded in biomedical research grants, more than $2 of additional business activity is created.

CDMRP's innovative approaches to funding biomedical research have led to several significant breakthroughs and achievements, contributing to national security and the health and welfare of U.S. Armed Forces personnel and their dependents. Continued federal funding will only build on these successes.

## Conclusion

Sustainable, predictable funding growth for medical research and all federal agencies that support the public health continuum is key in ensuring that our nation can fully benefit from the wide range of scientific advances and build on developing knowledge to improve health over the long term. AAMC member medical schools, academic health systems, and teaching hospitals play a leading role in translating research into world-class clinical care for patients, ensuring the

products of federal research investments contribute to the health and well-being of all Americans. In addition to the federal research agencies highlighted above, agencies across HHS, including the Centers for Disease Control and Prevention (CDC), the Agency for Healthcare Research (AHRQ), the Patient Centered Outcomes Research Institute (PCORI), and other federal agencies including the National Science Foundation (NSF), among others, are key partners in advancing patient health, strengthening the nation's research enterprise, and ensuring the U.S. is the top destination for international research talent.

The AAMC remains committed to working with Congress to increase funding for medical research agencies and programs across the federal government in order to maintain our nation's leading role in biomedical research.