Submission by the American Association of Immunologists (AAI) to the National Institutes of Health (NIH) Request for Information: Inviting Comments and Suggestions on a Framework for the NIH-Wide Strategic Plan for Fiscal Years 2027-2031

May 26, 2026

Priority 1: Research Areas

- Goal 1: Advance Foundational Knowledge of Human Health and Disease
- Goal 2: Prevent Disease and Promote Health Across the Lifespan
- Goal 3: Advance and Optimize Interventions, Treatments, and Cures

AAI strongly supports NIH's mission as stated in the RFI to "support research in pursuit of fundamental knowledge about the nature and behavior of living systems" and is pleased to see continued prioritization of advancing foundational knowledge of human health and disease. AAI suggests reframing Goal 1 to emphasize research "relevant to human health and disease," given that transformative advances often originate from curiosity-driven basic research on other living systems, including animal models. Breakthroughs such as CRISPR-based genome editing (a discovery that emerged from research on a bacterial immune system) and immune checkpoint blockade therapies (which originated from studies asking basic questions about how the immune system is regulated using mouse models) underscore that investments in basic research are essential precursors to clinical innovation.

It is critical to explicitly support research on the immune system as a core determinant of health and disease. The immune system is involved in a vast array of diseases, including infectious diseases, cancer, allergies, autoimmunity, and neurodegenerative conditions. Prioritizing research that elucidates immune function – at the steady state, during acute and chronic conditions, and across the lifespan – will significantly aid in preventing disease, promoting health, and optimizing treatments and cures. NIH should emphasize inflammation as a fundamental biological process that underlies a broad spectrum of acute and chronic diseases and prioritize sustained investment in research on the initiation, regulation, and resolution of inflammation in the context of disease. AAI urges NIH to prioritize support for preventative measures like vaccines, including next-generation vaccines whose potential expands beyond infectious diseases. Crucially, investment in advancing mechanistic understanding of vaccine-induced immunity in humans is needed to spur innovation and optimization of vaccine platforms.

AAI urges NIH to emphasize the indispensable role of animal models in advancing biomedical knowledge. Many foundational research projects and preclinical safety studies cannot be ethically or technically pursued in humans, and many clinical breakthroughs emerge from decades of research in animal models. While continued innovation in new approach methodologies (NAMs) is important, animal models remain essential to a comprehensive research ecosystem, particularly for studying complex, whole-body systems like the immune system. Although NAMs may reduce the need for animal models over time, they are currently insufficient to examine such systemic, multi-cell, coordinated responses.

Finally, achieving the goals outlined in the framework requires predictable, stable, and robust funding. While it is incumbent on Congress to provide funding, NIH plays a crucial role in allocating this funding. Progress requires continuity of support, and investigators must be able to pursue the curiosity-driven science that lays the foundation for breakthroughs, with confidence that their work will be reviewed through a scientifically rigorous, objective, non-ideological, transparent process. Peer review, while imperfect, remains the best mechanism to make merit-based funding decisions and NIH should ensure that the priority scores assigned through this process remain the central tenet of funding decisions. NIH ICs should continue to have the flexibility to support meritorious proposals that would have fallen outside of typical paylines, including grants that support early-stage and at-risk investigators.

Priority 2: Research Capacity

- Goal 1: Develop and Sustain an Interdisciplinary Research Workforce
- Goal 2: Build, Improve, and Sustain Research Resources and Infrastructure

A robust and sustainable U.S. research enterprise depends on the recruitment and retention of a highly skilled, globally competitive workforce that brings together broad expertise, varied perspectives, and complementary strengths, supported by world-class infrastructure. NIH plays a central role in cultivating this ecosystem, in particular by training and supporting early-stage investigators (ESIs), and AAI strongly supports efforts to recruit and retain top scientific talent from across the U.S. and around the world. Maintaining U.S. leadership in biomedical research requires a predictable and stable funding environment that provides trainees and ESIs with confidence in the scientific enterprise and inspires the next generation of scientists to pursue biomedical research careers.

AAI encourages NIH to highlight the importance of international collaboration to U.S. scientific leadership and limit barriers to such collaboration in its quest to maintain research security. In addition, NIH should intentionally bolster the early career pipeline by creating more funding and career transition mechanisms or dedicated programs for ESIs, while cultivating a funding environment that provides future stability. More than 46% of postdoctoral researchers in biological and biomedical sciences are temporary visa holders, and stringent immigration policies have made it difficult for these scientists that the American taxpayer has invested in to stay in the U.S., leading to immense loss of scientific talent to competitor nations, such as China.

Sustained investment in NIH's intramural and extramural infrastructure, including its workforce, is critical. The NIH research ecosystem is widely regarded as a global benchmark and has long been termed the "crown jewel;" preserving this status requires long-term funding stability and operational continuity. Policies that introduce uncertainty – such as the abrupt near-elimination of specific notices of funding opportunity (NOFO) announcements, efforts to cap essential facilities and administrative (F&A) costs at an unsustainable rate, and the rapid increased use of multi-year funding – risk destabilizing institutions, endangering scientific progress, and deterring current and future investigators from serving the American public by pursuing careers in biomedical research.

AAI strongly urges NIH to avoid one-size-fits-all approaches to limit F&A reimbursements, which fail to account for institutional variability, overlook the true cost of research, and make it especially difficult to comply with government-imposed regulations. AAI urges NIH to dramatically scale back its use of multi-year funding (MYF), as this financial mechanism resulted in a large reduction in total grants funded by NIH in fiscal year (FY) 2025 and is projected to result in further reductions moving forward. The impact of the MYF expansion continues to be felt by researchers at all career stages, including by ESIs who were already struggling to compete in a difficult funding environment.

AAI encourages NIH to prioritize strengthening research capacity by investing in institutional competitiveness rather than focusing too heavily on geographic distribution of awards, as is outlined in the NIH Unified Funding Strategy. Enhancing infrastructure at under-resourced institutions and expanding access to cutting-edge technologies – through targeted investments in core facilities and administrative support – would result in more equitable research capacity without compromising peer-review standards and scientific excellence.

Priority 3: Research Operations

- Goal 1: Enhance Scientific Stewardship and Decision-Making
- Goal 2: Foster Transparency and Accountability to Improve Public Trust in Science

Effective research operations depend on transparent, consistent, and evidence-based decision-making processes. AAI commends NIH for its focus on enhancing scientific stewardship and fostering public trust and urges the agency to provide greater clarity on how funding decisions will be made under new and evolving policies, including the Unified Funding Strategy and the drastic reduction in notices of funding opportunities (NOFOs). While AAI strongly supports investigator-initiated science and understands NIH's desire to reexamine its use of NOFOs, available evidence indicates that these announcements have essentially ground to a halt, stalling important initiatives and in some cases making it difficult for NIH ICs to comply with Congressional mandates, like the Special Diabetes Program for Type 1 diabetes research and the Helping to End Addiction Long-Term (HEAL) Initiative that supports research on solutions to the opioid crisis. AAI appreciates that programs like these remain priorities for NIH and American taxpayers and would welcome the opportunity to work with NIH to ensure that these funds are spent as intended.

Transparency is essential in the context of funding decisions. The absence of clearly defined benchmarks (e.g., paylines) has created more uncertainty and raised concerns about the potential influence of non-scientific factors in funding decisions. Establishing and communicating clear criteria for award decisions will help ensure that funding remains grounded in rigorous peer review and scientific merit.

AAI strongly believes that merit-based, peer-reviewed evaluation must remain the gold standard for NIH funding decisions. Advisory Councils play an essential role in this process, and it is imperative that these bodies are fully staffed with qualified experts to provide balanced, evidence-based oversight. Gaps in Council membership or deviations from established review processes risk undermining confidence in NIH's decision-making processes.

In addition, NIH should continue to advance transparency and accountability in ways that strengthen public trust. This includes clearly communicating how research priorities are set, how funding decisions align with those priorities, and how taxpayer investments translate into health benefits. Supporting research on the drivers of public distrust in science, including the growing distrust in safe and effective vaccines, and applying those insights to NIH communication strategies will help ensure that the outstanding breakthroughs that result from NIH research are trusted by members of the public, including by the patients who need them most. AAI urges NIH to develop programs that effectively communicate the immense value of federally funded biomedical research to human health and to the American economy. Further, NIH should play a more active role in combating misinformation, especially as it relates to the safety and effectiveness of life-saving vaccines.

Above all, NIH should ensure that its policies promote stability and predictability for the research community. While AAI believes that NIH shares these goals, concerns have arisen about inconsistent processes and the lack of transparency, clear guidance, and open communication, which are essential for enabling investigators to navigate the funding landscape effectively and to promote scientific progress. By recommitting to transparent, merit-based decision-making, NIH can sustain scientific excellence and public confidence in the biomedical research enterprise.