



AMERICAN INSTITUTE FOR MEDICAL
AND BIOLOGICAL ENGINEERING

December 23, 2025

Michael Kratsios
Director
Office of Science and Technology Policy
1650 Pennsylvania Avenue NW
Washington, DC 20502

Submitted via Regulations.gov

RE: Docket ID number OSTP-TECH-2025-0100; Accelerating the American Scientific Enterprise

Dear Director Kratsios,

On behalf of the American Institute for Medical and Biological Engineering (AIMBE), thank you for the opportunity to respond to the Office of Science and Technology Policy's (OSTP) RFI on Accelerating the American Scientific Enterprise.

AIMBE is a nonprofit organization representing the top 2% of the medical and biological engineering community, including leaders from academia, industry, and clinical practice. AIMBE's membership includes thousands of engineers and researchers across the US who work at the intersection of discovery, innovation, and translation to improve human health, strengthen the economy, and advance national priorities.

AIMBE strongly supports the longstanding federal commitment to the nation's research enterprise and the public-private partnerships that have emerged from this model. This approach has been foundational to US leadership in science and engineering, enabling transformative advances in medical technology, diagnostics, therapeutics, and health systems. Sustained federal investment, coupled with thoughtful policy design, is essential to motivating, coordinating, and supporting the interdisciplinary efforts required to translate scientific discoveries into real world impact.

At the same time, the complexity of today's scientific and societal challenges calls for continued evolution of funding mechanisms, institutional models, and workforce pathways. Medical and biological engineering offers a unique perspective on these issues, as progress in this field

depends not only on discovery, but also on effective translation, regulatory navigation, manufacturing scale up, and adoption in clinical and community settings.

In response to this RFI, AIMBE focuses its comments on key policy opportunities to strengthen public private collaboration, accelerate technology translation, modernize federal grantmaking, support emerging institutional and regional innovation models, and prepare a diverse, interdisciplinary workforce equipped to deliver broad societal benefit from federally funded research.

AIMBE strongly supports efforts to strengthen public–private collaboration and accelerate the translation of scientific discoveries into societal benefit. Medical and biological engineering sits at the intersection of fundamental discovery, technology development, and real-world deployment, making this RFI particularly relevant to our community.

1. Expand Proof-of-Concept and Gap Funding to Bridge Research and Commercialization

(Addresses questions i, ii, iv, vi)

One of the most critical needs in the U.S. innovation ecosystem is expanded support for proof-of-concept and “gap” funding programs that bridge the divide between basic research and commercialization. Many promising discoveries stall because they are too applied for traditional research grants but too early-stage for private investment.

AIMBE recommends:

- Funding university-led proof-of-concept gap grants that provide milestone-driven support to de-risk technologies and advance them toward prototypes, pilots, or clinical validation.
- Embedding commercialization mentors and regulatory experts within these programs to guide teams through technical, market, and regulatory inflection points.
- Aligning these programs with SBIR/STTR pathways to ensure continuity from early validation to first sales.

2. Streamline and Modernize Technology Transfer Policies

(Addresses questions ii, ix)

Lengthy negotiations and inconsistent intellectual property (IP) practices across institutions remain a significant barrier to translation.

AIMBE recommends:

- Publishing model university licensing templates, including student- and startup-friendly IP provisions and time-limited negotiation windows, to reduce friction and administrative burden.
- Encouraging standardized approaches across federally funded institutions while preserving flexibility for unique cases.
- Supporting shared best practices that balance institutional stewardship with speed to impact.

3. Address Misalignment Between Academic and Industry Incentives

(Addresses questions i, ii, vii)

While public–private partnerships are essential, a persistent challenge is the misalignment between academic incentives (training, reporting basic research discoveries, and reliable funding support for early-stage research) and industry goals (product development and revenue generation). Although collaboration works well in some cases, this misalignment contributes to inefficiencies and failed translation efforts.

AIMBE recommends policies that:

- Encourage academic institutions to standardize recognition of entrepreneurial and translational activities, including startup formation, licensing, and product development in tenure and promotion decisions.
- Encourage academic institutions to expand royalty-sharing models and incentive structures that reward faculty, staff, and students for successful translation.
- Provide stipends, scholarships, and paid leave mechanisms that allow faculty and trainees to engage in entrepreneurial activities, with clear conflict-of-interest guardrails and reentry pathways into academia.

4. Strengthen Public–Private Partnerships and Regional Innovation Ecosystems

(Addresses questions i, iii, iv, vii)

AIMBE supports place-based and partnership-driven innovation models that co-locate research, infrastructure, and workforce development.

AIMBE recommends:

- Expanding matching fund programs that incentivize industry participation alongside federal investment.

- Scaling regional innovation hubs (e.g., NSF Engines, EDA Tech Hubs) with long-term operations funding and inclusive governance that engages MSIs, HBCUs, community colleges, and SMEs to help ensure that federal investments move beyond short-term projects to support sustained collaboration, regional capacity building, and the broad dissemination of innovation benefits.
- Supporting shared facilities, such as prototyping labs, pilot manufacturing lines, and data commons, with subsidized access for universities and small- and medium-sized enterprises.

5. Invest in Workforce Development for Translation and Emerging Technologies

(Addresses questions x, xi, viii)

To sustain innovation, the US must prepare researchers to navigate increasingly complex translational pathways.

AIMBE recommends:

- Workforce development programs focused on regulatory science, intellectual property, data stewardship, and commercialization strategy for graduate students and postdoctoral researchers.
- A national internship and fellowship matching platform connecting students, postdocs, technicians, industry partners, and national laboratories.
- Policies that encourage cross-disciplinary teams, explicitly recognizing the role of engineers and skilled technical workers alongside scientists.

6. Build AI-Enabled, Distributed Research Infrastructure

(Addresses questions viii, x)

AI has the potential to transform scientific research, but realizing this promise requires coordinated infrastructure and governance.

AIMBE recommends:

- Providing AI compute credits and secure cloud/HPC access through initiatives such as National Artificial Intelligence Research Resource (NAIRR) led by NSF.
- Supporting curated, discipline-specific datasets, reproducible data commons with FAIR standards, and tools for provenance and audit.



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- Enabling remote and tele-operated access to national laboratory instruments and campus core facilities to support distributed research teams.

7. Ensure Broad and Equitable Societal Benefit from Federally Funded Research

(Addresses questions xii, iii)

Finally, AIMBE emphasizes that the benefits of federally funded research should extend broadly across communities.

AIMBE recommends:

- Covering open-access publishing and data deposition costs.
- Supporting community-engaged translation efforts that ensure technologies address local and national needs.
- Using prizes, advance market commitments, and federal “first customer” programs to pull university-developed technologies into real-world use in health, climate, and manufacturing.

Sincerely,

A handwritten signature in black ink, appearing to read "Lola Eniola-Adefeso".

Lola Eniola-Adefeso, Ph.D.

AIMBE President

Professor of Biomedical Engineering & Dean of Engineering
University of Illinois Chicago

American Institute for Medical and Biological Engineering (AIMBE)
1400 I Street NW, Suite 235, Washington, DC 20005