

May 27, 2024

Office of Data Science Strategy
National Institute of Health
9000 Rockville Pike
Bethesda, MD 20892

RE: Comments and Suggestions on the National Institute of Allergy and Infectious Diseases (NIAID) Strategic Plan

The American Society for Biochemistry and Molecular Biology is an international nonprofit scientific and educational organization that represents more than 12,000 students, researchers, educators and industry professionals. The ASBMB strongly advocates for strengthening the science, technology, engineering and mathematics (STEM) workforce; supporting sustainable funding for the American research enterprise; ensuring diversity, equity, accessibility and inclusion (DEAI) in STEM; and addressing emerging issues in the scientific enterprise.

The ASBMB appreciates the opportunity to submit feedback on the research priorities in the National Institute of Allergy and Infectious Diseases' strategic plan. The ASBMB strongly encourages the institute to prioritize basic science research, especially fundamental science related to antimicrobial resistance and pathogens with high mortality rates. The cross-cutting themes of DEAI, women's health, health disparities, research inclusivity and global health also should be priorities

The society has five recommendations for NIAID to consider when drafting its new strategic plan.

Recommendation 1: Update "apply" knowledge language across the strategic plan.

Basic science research is an essential part of the scientific enterprise. While the ASBMB acknowledges the importance of applied sciences, it strongly encourages NIAID to update language in priorities 1-4 to say "develop and apply knowledge" to ensure that basic science is weaved into all the research priorities of the institute.

Recommendation 2: Substitute the term "microbe" with "pathogen."

Microbes inhabit all parts of the planet, and most are benign. The NIAID should prioritize those that could harm human, animal and agricultural health. The language of the strategic plan should emphasize the prioritization of pathogens, not microbes at large.

Recommendation 3: Prioritize pathogens that contribute to high death rates

The society commends the NIAID's ongoing commitment to HIV/AIDS research but encourages the institute to also prioritize pathogens that are related to high mortality rates in the U.S. and globally. The Centers for Disease Control and Prevention [tracks pathogens](#) that pose a national threat.

Recommendation 4: Elevate cross-cutting themes to priorities.

The cross-cutting themes of supporting the next generation of the scientific workforce, improving data science and sharing, and building infrastructure and research facilities should be incorporated as priorities in the NIAID's strategic plan. Supporting the next generation of the scientific workforce is imperative to continuing the institute's research priorities. The ASBMB urges the NIAID to integrate workforce and training throughout its priorities, especially priority 5. Moreover, the cross-cutting themes of data science and sharing and infrastructure and research facilities should be integrated throughout all five priorities to ensure that the NIAID's research priorities are conducted with the equipment it needs to be most efficient and productive.

Recommendation 5: Set artificial intelligence as a top objective in priority 5.

The NIAID needs to ensure that it is keeping pace with the fast-moving discipline of artificial intelligence (AI)/machine learning. AI has unique capabilities to enhance research across all of the NIAID's research priorities by [predicting disease states and automating research processes](#). The NIAID should ensure that AI is front and center within priority 5 and applied throughout the objectives.