



**U.S. NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314**

NSF 24-061

Dear Colleague Letter: Science of Science Approach to Analyzing and Innovating the Biomedical Research Enterprise (SoS:Bio)

February 22, 2024

Dear Colleagues:

With this Dear Colleague Letter (DCL) the U.S. National Science Foundation (NSF) and the National Institutes of Health (NIH) wish to notify the research community of a joint NSF and National Institute of General Medical Sciences (NIGMS) research program called the [Science of Science Approach to Analyzing and Innovating the Biomedical Research Enterprise \(SoS:Bio\)](#). This DCL encourages proposals that broaden participation from diverse talent pools to advance the science of science on biomedical sciences.

BACKGROUND

NSF promotes the progress of science by maintaining the general health of research and education across all fields of science and engineering. The NIH seeks fundamental knowledge about the nature and behavior of living systems and applies that knowledge to optimize health and prevent or reduce illness for all people. Both agencies have identified the need and opportunities for building and supporting research projects with a focus on understanding the scientific research enterprise. Consequently, NIGMS and NSF's Social, Behavioral, and Economic (SBE) Directorate have established a joint initiative to support a Science of Science Approach to Analyzing and Innovating the Biomedical Research Enterprise (SoS: Bio).

SOS:Bio

SoS:Bio encourages proposals that will advance understanding of the biomedical research enterprise by drawing from the expertise of the Science of Science research community. Research can draw from a variety of social science disciplines and use a breadth of methodologies and theories to address important Science of Science research questions relevant to biomedical research – from discovery to impact. The SoS:Bio program will also consider proposals designed to create and provide access to datasets on important Science

of Science topics that will enable research questions to be answered. Topics of interest include, but **are not limited to**, research studies that promote our understanding of the following areas:

- Policy considerations to promote impactful and innovative research (For example, the impacts of various funding approaches).
- Mechanisms that foster effective biomedical scientific collaboration and team science.
- The barriers to and effective methods for promoting broad participation in the biomedical research enterprise, such as:
 - Encouraging the inclusion of the full spectrum of diverse talent which includes individuals from underrepresented groups in the workforce.
 - Strengthening research infrastructure at organizations, such as [Minority Serving Institutions](#) (MSIs).
 - Enhancing the research capacity of regions, such as in NIH's [IDeA](#) states and NSF's [EPSCoR](#) jurisdictions.
 - Diversifying clinical trial participation.
- The effects of academic institutional policies (such as salary support, promotion, and tenure policies) on scientific practice and progress.
- Labor market dynamics in the biomedical research workforce.
- The impact of federal policy on the biomedical research enterprise (for example, Open Access mandates, [NIH Policy and Compliance](#) considerations).
- The mechanisms to foster communication within the biomedical research community (for example, the impact of preprints in biomedical research) and from the biomedical research community to relevant stakeholders (e.g. policy makers, the public).
- Outcomes of biomedical science investments (for example, R&D, commercialization, public health, extending their impacts to [health disparity](#) populations, and economic and societal outcomes).
- The use of evidence to advance policymaking relevant to the biomedical science and research enterprise.

SUBMISSION INSTRUCTIONS

Proposals should be submitted to NSF Program Solicitation [NSF 23-569](#). The next target dates for full proposals are 5 p.m. submitter's local time on September 9, 2024 and February 10, 2025. The annual target dates thereafter will be September 9 and February 9. Proposals must be prepared and submitted in accordance with guidelines contained in the [NSF Proposal & Award Policies & Procedures Guide](#) (PAPPG) and the relevant program solicitation.

POINTS OF CONTACT

Investigators interested in submitting a proposal are strongly encouraged to contact one of

the program directors listed below for further information:

- Mary K. Feeney, NSF/SBE/Science of Science (mfeeney@nsf.gov)
- Kenneth D. Gibbs, Jr., Ph.D., NIGMS (kenneth.gibbs@nih.gov)

Sincerely,

Dr. Sylvia Butterfield, Acting Assistant Director
Directorate for Social, Behavioral and Economic Sciences (SBE)