



NATIONAL SCIENCE FOUNDATION
4201 Wilson Boulevard
Arlington, Virginia 22230

NSF 17-127

Dear Colleague Letter: Life STEM

August 25, 2017

Dear Colleague:

The National Science Foundation (NSF) has established inclusiveness as one of its core values. The Foundation seeks and embraces contributions from all segments of the science, technology, engineering, and mathematics (STEM) community including underrepresented groups and minority serving institutions. NSF currently invests in a number of programs targeting underrepresented populations and institutions. This Dear Colleague Letter (DCL) describes another opportunity to build on the Agency's longstanding efforts of inclusiveness by providing a mechanism for researchers to inform, create, implement, and evaluate innovative models of intervention in STEM (with particular attention to life science and bioscience), beginning in elementary school through undergraduate studies.

Through this DCL, NSF invites eligible organizations to submit research proposals that inform, create, implement, and evaluate models of intervention that will advance the knowledge base for establishing and retaining underrepresented minorities in STEM fields with particular attention to life science and the biosciences. Researchers from minority-serving institutions, including Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges and Universities, are particularly encouraged to apply. Proposals should partner eligible organizations with local elementary, middle or high schools to foster collaborative relationships between K-12 science educators and the research community. The activities may occur in formal and/or informal settings. Proposals may address science topics and activities related to curriculum development, teacher support, and student engagement. Proposals should describe effective methods to disseminate findings broadly to the K-16 science education community.

Researchers are invited to submit proposals to one of the following programs, in accordance with NSF's *Proposal and Award Policies and Procedures Guide* (PAPPG, https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg) and individual program solicitation requirements. Researchers must pay close attention to specific requirements outlined in each program solicitation included in this DCL. Regardless of the program, the title of each proposal should begin with "Life STEM."

Discovery Research PreK-12

The DRK-12 program supports integrated research and development of resources, models and tools in the service of STEM learning and learning environments with the goals of enhancing student understanding of STEM, preparation for the scientific workforce, and improved science literacy. The focus is on learning that takes place while students are enrolled in the formal classroom learning environment. https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=500047.

Innovative Technology Experiences for Students and Teachers

The I-TEST program supports projects that promote awareness and interest in rapidly emerging fields such as biotechnologies or robotics, focusing on projects that examine forms of mentorship, engage students with technologies associated with STEM professions, involve students with business and industry through partnerships, and/or examine career advancement among students in the early grades. https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5467.

Advancing Informal STEM Learning Program

The AISL program seeks to: (a) advance new approaches to and evidence-based understanding of the design and development of STEM learning in informal environments; (b) provide multiple pathways for broadening access to and engagement in STEM learning experiences; (c) advance innovative research on and assessment of STEM learning in informal environments; and (d) engage the public of all ages in learning STEM in informal environments. https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504793.

EHR Core Research (ECR)

The EHR Core Research program supports fundamental research in STEM education that synthesizes, builds upon and/or expands foundational knowledge in the areas of STEM learning and learning environments, STEM workforce development and broadening participation in STEM. https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504924.

Improving Undergraduate STEM Education

The IUSE program supports the development, use and testing of instructional practices and curricular innovations that engage and improve undergraduate student learning and retention in STEM. IUSE also supports large scale uptake of improvements in STEM education through support of institutional transformation and Community transformation projects. https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505082.

HBCU Undergraduate Program

The HBCU-UP program supports the development, implementation and study of evidence-based innovative models and approaches for improving the preparation and success of HBCU undergraduate students. https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5481.

Through this DCL, researchers may also submit EARly-concept Grants for Exploratory Research (EAGER) proposals to explore new directions or appropriate extensions of disciplinary-based

research activities. EAGER proposals must conform to the guidelines for preparation of such a proposals (including the requirement to discuss the proposal with a program officer prior to submission) as specified in the PAPPG. EAGER proposals have a maximum size of \$300,000 and a maximum duration of two years. All EAGERS in response to this DCL should be submitted during the same deadline as the program solicitation to which it is linked. The title of the proposal should be prefixed with "Life STEM EAGER."

Researchers interested in submitting proposals or having questions pertaining to this DCL may contact: Celestine Pea, Program Officer, cpea@nsf.gov.

This DCL is expected to be in effect from September 1, 2017, until further notice. All proposals should be submitted in accordance with NSF's PAPPG and individual program solicitations that can be found through the URLs listed in this letter.

Sincerely,

William J. Lewis

Assistant Director (Acting)

Directorate for Education and Human Resources