



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 19-086

Dear Colleague Letter: Support for Engaging Students and the Public in Polar Research

September 17, 2019

Dear Colleagues:

The Directorate for Education and Human Resources (EHR) and the Directorate for Geosciences (GEO) are partnering to advance and develop understanding of learning environments that build upon the rich interdisciplinary resources emerging from polar investments. To that end, the Division of Research on Learning (DRL), the Division of Undergraduate Education (DUE) and the Office of Polar Programs (OPP), encourage proposals that will leverage the extensive National Science Foundation (NSF) investment in polar sciences and infrastructure, and STEM (Science, Technology, Engineering and Mathematics) education research and development, to promote an informed citizenry and the next generation of scientists. In order to advance polar science educational opportunities, DRL, DUE and OPP will accept and review proposals for research and development projects **that facilitate access to polar research efforts in (1) undergraduate education, (2) informal science education or (3) formal PreK-12 science or math education.** Proposals in response to this Dear Colleague Letter (DCL) must be submitted to either the Advancing Informal STEM Learning (AISL) solicitation, the Discovery Research PreK-12 (DRK-12) solicitation, or the Improving Undergraduate Science Education: Education and Human Resources (IUSE: EHR) solicitation.

The [integration of research and education](#) is essential to NSF's mission. In addition, NSF strives to broaden participation in science and to make the results of research projects widely accessible to students and the public. Specifically, OPP seeks to meet these objectives by supporting the engagement of diverse students, educators, and the public in polar research projects. While participation of educators and students in both Arctic and Antarctic research projects is encouraged, logistics are often difficult and expensive. Therefore, DRL, DUE and OPP encourage education research and development proposals that make use of innovative technologies and pedagogies to give large groups of students, educators and the public access to polar research efforts in the polar regions without requiring all participants to travel

there. Proposals that engage audiences with long-term investments in polar research and logistics (e.g., the Arctic or Antarctic science stations), with databases that have extended lifespans, (e.g., data from the Arctic Observing Network), with virtual reality technology or with public participation in scientific research, such as crowdsourcing or citizen science related to the Arctic or Antarctic, are particularly encouraged. Proposals that engage students who are under-represented in STEM fields or that respond to the [Navigating the New Arctic](#) focus are also encouraged.

In order to support the goals above, NSF encourages the submission of proposals to any of the three programs below:

1. [Advancing Informal STEM Learning](#) (AISL)
2. [Discovery Research PreK-12](#) (DRK-12)
3. [Improving Undergraduate Science Education: Education and Human Resources](#) (IUSE:EHR)

Please see the NSF website (www.nsf.gov) for the latest solicitation from each of these programs. Proposals submitted in response to this DCL must be identified by starting the proposal title with the term: "*EHR-Polar DCL: (Insert Project Title Here)*".

Those considering submitting a proposal in response to this DCL are encouraged to contact Lisa Rom: elrom@nsf.gov; 703-292-7709, the cognizant NSF program officer who can answer questions and provide further guidance. If travel to the polar regions is included in the project, Principal Investigators (PIs) are strongly encouraged to contact NSF/OPP program officers to discuss logistics and related documentation that must be included in the proposal.

Sincerely,

Karen Marrongelle
Assistant Director, EHR

William E. Easterling
Assistant Director, GEO