



National Science Foundation
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NSF 15-117

Dear Colleague Letter: Prediction of and Resilience against Extreme EVENTS (PREEVENTS)

September 9, 2015

Dear Colleague:

Natural disasters cause thousands of deaths annually, and in 2013 alone they caused over \$130 billion in damage worldwide (MunichRe, 2014). The National Science Foundation (NSF) has long supported basic research in scientific and engineering disciplines necessary to understand extreme natural events and hazards, including through the [Interdisciplinary Research in Hazards and Disasters \(Hazards SEES\) program](#), which recently completed its second and final competition. Pending the availability of resources beginning in Federal fiscal year 2016 (FY16), the Directorate for Geosciences (GEO) at NSF plans an opportunity for research in natural hazards and extreme events called Prediction of and Resilience against Extreme EVENTS (PREEVENTS). This letter provides general information about, and encourages proposals for, projects relevant to the goals of PREEVENTS.

PREEVENTS is one of the successors to the Hazards SEES program, and one element of the FY16 Risk and Resilience activity at NSF. PREEVENTS is designed to (1) enhance understanding of the fundamental processes underlying natural hazards and extreme events on various spatial and temporal scales, as well as the variability inherent in such hazards and events; (2) improve models of natural hazards, extreme events, and their impacts on natural, social, and economic systems; and (3) enable development of new tools to enhance societal preparedness and resilience against such impacts. PREEVENTS will focus on natural hazards and extreme events, not those that are deliberate or accidental. PREEVENTS will include opportunities for disciplinary and multidisciplinary projects at multiple scales, particularly in areas ripe for significant near- or medium-term advances.

Through this letter, GEO welcomes proposals for research projects and/or focused workshops that would advance the goals of PREEVENTS. Research projects may involve any PREEVENTS-relevant scientific area supported by existing GEO programs. GEO envisions PREEVENTS workshops as fostering community development in disciplinary and/or cross-disciplinary areas that are not yet well established. PREEVENTS proposals may be submitted to any appropriate existing GEO program(s), subject to the limitations for the particular program(s).

PIs who are considering a submission pursuant to this Dear Colleague Letter are strongly encouraged to contact the PREEVENTS Management Team (preevents@nsf.gov) and the program officer(s) responsible for the intended target GEO program(s). It will be helpful to do so early in the proposal development process, and to (1) identify the natural hazard and/or extreme event process that would be addressed in the planned project; (2) explain the scientific motivation for the planned project in the context of natural hazards and/or extreme events; and (3) indicate whether or not the planned project may involve resources or staff from other Federal agencies.

Subject to the availability of resources, NSF intends to release a formal PREEVENTS solicitation in 2016 that will specify program guidelines and proposal requirements, including eligibility and budgetary information, review criteria, and other relevant information.

All inquiries regarding this Dear Colleague Letter and/or the envisioned future for PREEVENTS should be directed to the PREEVENTS Management Team (preevents@nsf.gov).

Sincerely,

Roger Wakimoto
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