

Guidance to NSF Principal Investigators on Request for Supplemental Funding for Virtual Research Experiences for Undergraduate (REU) Students

The pandemic has created huge problems for existing NSF grants especially for those providing research experiences for undergraduate students. There are many active NSF grants across CUNY with research experiences for undergraduates. Many of these experiences are primarily occurring in the summer but are also taking place all year long. We are concerned that these in-person internships are not occurring due to the COVID-19 global pandemic. These internships are important steps in students' careers, particularly in the STEM fields, and the loss of internship opportunities will significantly impact their career trajectories. The COVID-19 pandemic has also impacted students by abruptly moving them to online learning. Faculty and students have expressed concerns regarding the loss of these in-person internships. They are critical steps in their academic preparation and source of income. We would like to find ways to maximize the number of experiential learning opportunities for STEM students. We should be thinking of assessing the implementation of training and/or research programs that could host remote and virtual student internships. We believe that NSF and other Federal sponsors will be receptive to this. A supplemental funding request can only be made if the PI thinks it is required for their project and each individual PI submits a request to their respective NSF program officer for approval. We have prepared a suggested short write-up that can be used as a template by the PI to prepare a preliminary request for a supplement to their existing grant asking the NSF Program Officer whether they will entertain a supplement to fund virtual REUs. We should check and see whether they are willing to provide this type of support before the PIs go through the effort of preparing a formal request. Please let us know if we are duplicating efforts already underway. We want to be helpful to prevent a potential loss of these valuable research experiences to students across CUNY.

Template for Supplemental Funding Request for Virtual REUs

Many U.S. college students have seen their research internships evaporate due to the COVID-19 global pandemic. This reality is even more pronounced in regions of the country where the pandemic has had the greatest impact, including New York City. Internships are an integral step forward in students' careers, particularly in the STEM fields, and the loss of internship opportunities will significantly impact their career trajectories. We see evidence of this among the students in the twenty-four colleges and institutions in the City University of New York (CUNY) system—the nation's largest urban university system, serving over 278,000 full-time students. Our college provides an affordable entry point into higher education for low income and first-generation students and has an extremely diverse student body reflective of the diversity of the city itself. Approximately 41 percent of students are the first in their families to attend college. As with many colleges across the nation, the COVID-19 pandemic has impacted every student by abruptly moving them to online learning. But our students are also widely reporting the loss of summer and year-round internships, a critical element of their academic preparation and source of income. With most NYC area employers initiating hiring freezes and cancelling programs, opportunities for our students have largely dissipated, with limited exceptions allowing for remote internships. We see these on-campus Research Experiences for

Undergraduates and other workforce development program experiences as an excellent opportunity to fill the gap and mitigate impacts of the pandemic by allowing students to gain experience that they would otherwise have earned in corporate or government internships. In a coordinated effort to maximize the number of experiential learning opportunities for STEM students, CUNY has been assessing training and/or research programs that could host remote internships. We have identified close potential paid internship spots for our students that could be conducted remotely, under close supervision of faculty and/or senior research staff. A few opportunities available will also include collaboration with industry partners. A call has resulted in significant numbers of for students' interest participating in this effort. The plan forward calls for additional funding to support students in an organized 8-10-week remote experiential learning program complemented by professional development opportunities, which includes a Virtual Research Symposium. The Virtual Internship Program will also incorporate an assessment of the impacts of the pandemic in our ability to organize experiential learning opportunities, and in students' learning via these experiences. REUs on existing NSF Grants will be an essential piece in maximizing opportunities for our students. We therefore request support from NSF to facilitate REU supplements to existing grants for which PIs have agreed to host and remotely supervise students. Evaluation to gauge the success of and satisfaction with REUs (contrasted with past years) will be included as part of this effort. We hope that NSF accommodates our request for this supplement to provide undergraduate students the research experience that they were expecting to receive and to add additional experiences for students who have expressed an interest in an REU. This request will facilitate at least [include number] additional REU experiences in our institution.