



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 21-065

Dear Colleague Letter: PHY Supplements: Growing a Strong, Diverse Workforce

April 6, 2021

Dear Colleagues:

Solving the cutting-edge problems pursued by the Physics community requires tapping the nation's human talent and resources in their entirety. The Division of Physics (PHY) recognizes that the development of a diverse Physics workforce is critical for continued progress in scientific discovery. To that end, the recruitment, mentorship, and retention of junior researchers from historically underrepresented groups is essential.

The National Science Foundation (NSF) is committed to broadening the participation of historically underrepresented groups in science and engineering. As part of that effort, PHY strongly encourages meaningful actions that increase the awareness and participation by historically underrepresented groups – including, but not limited to Blacks and African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and other Pacific Islanders, women, and persons with disabilities - in all fields of research supported by the Division of Physics. To that end, this Dear Colleague Letter (DCL) encourages Principal Investigators (PIs) with active PHY awards to seek opportunities to better engage students from underrepresented groups and discusses ways in which supplements to existing awards can be used to support such efforts.

The NSF offers a number of opportunities for PIs to request supplements to enhance research and education opportunities for students. This DCL describes how some of these existing opportunities may be utilized in the interest of promoting the participation of underrepresented groups, as well as new, additional options the Division is offering. These opportunities are available through the disciplinary research programs. The opportunities highlighted through this DCL do not apply to Instrumentation acquisition awards, [REU Sites](#), or large awards made via the use of a cooperative agreement (e.g., facilities, institutes, and centers).

In addition to the support of undergraduate and graduate students discussed in this DCL, PIs

who identify other ways in which a supplement to an existing award could foster wider participation by members of underrepresented groups are encouraged to contact their cognizant Program Officer (PO). PIs may also utilize other NSF-wide supplement opportunities as a path for encouraging participation by students from underrepresented groups. For example, PHY currently provides supplemental support for veterans under NSF 20-097 "[DCL: MPS Graduate Research Supplement for Veterans \(MPS-GRSV\)](#)." Another example is "Facilitation Awards for Scientists and Engineers with Disabilities (FASED)," as described in Chapter II.E.6 of the [NSF Proposal & Award Policies & Procedures Guide \(PAPPG\)](#).

Funding of supplements described in this DCL is subject to the availability of funds. Submission of a supplemental funding request is not a guarantee of funding. For questions or information, and *before* submitting a supplemental funding request in response to this DCL, interested PIs *must* contact the cognizant PO for the current PHY award.

I. RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU) SUPPLEMENTS:

Eligible grantees may submit a supplemental funding request to support the costs for an undergraduate student working on PHY-funded research. An REU Supplement – described in the NSF 19-582 "[Research Experiences for Undergraduates \(REU\)](#)" solicitation - provides appropriate and valuable educational experiences for undergraduate students through participation in research. Undergraduate student participants supported by REU supplements must be US citizens, US nationals, or permanent residents of the United States. This DCL strongly encourages PIs to exert special efforts to recruit members of underrepresented groups, whose involvement in the research program will help broaden the participation from underrepresented groups, and note this as part of the REU supplement request. Preparation of an REU supplement request should follow the directions outlined in the REU solicitation. Please contact the cognizant PO for further guidance.

II. PHY GRADUATE RESEARCH SUPPLEMENTS (PHY-GRS):

Eligible grantees may submit a request for supplemental funding to support the costs for stipend, tuition, benefits, and indirect costs for a newly recruited graduate student working on PHY-funded research. This DCL encourages broadening participation from underrepresented groups. PIs from organizations that are part of [Alliances for Graduate Education and the Professoriate \(AGEP\)](#), or are associated with one of these organizations, or are associated with one of these organizations, should continue to use NSF 20-083 "[DCL: MPS AGEP-GRS](#)," if applicable to the student they wish to support. Please contact the cognizant PO for further guidance.

Anticipated Funding: One-year (twelve-month) supplement to a currently active PHY award for a single Ph.D. student; with the possibility for annual renewal for a total support period of

up to three years, contingent upon the duration of the active PHY research award and satisfactory progress of the student towards completion of the Ph.D. The annual amount of a PHY-GRS supplement is typically \$60,000.

Eligibility: A request for PHY-GRS supplemental funding may be submitted by the grantee organization on behalf of the PI of a currently active PHY research award. Students being nominated for support must not have other governmental funding (e.g., NSF, National Institutes of Health (NIH), Department of Energy (DoE)) support (stipend and tuition), i.e., students currently being supported fulltime by the PI on any NSF award as a doctoral student are not eligible for PHY-GRS support, and students who received NSF [GRFP](#) support are not eligible for PHY-GRS support. The graduate student's research project must be consistent with the research topic of the original PHY award. The nominated student must be a US citizen, US national, or permanent resident of the United States. By submitting a supplemental funding request, the grantee organization is certifying that the nominated student meets the eligibility requirements.

To be eligible for a renewal of a PHY-GRS for a second or third year, a student must be in good academic standing. The GRS renewal request must include a report on the student's progress towards the Ph.D. GRS renewals are subject to availability of funds in the program and should be submitted at least three months in advance of the expiration date for the previous supplement.

Preparation of a PHY-GRS Supplemental Funding Request: A PHY-GRS supplemental funding request to an existing PHY award should be submitted in [FastLane](#) in accordance with the guidelines found in Chapter VI.E.4 of the PAPPG and subject to the following instructions:

In the form entitled "**Summary of Proposed Work**," state that this is a PHY-GRS request and provide a brief description, not to exceed one page of the proposed PHY-GRS activity, the impact of the PHY-GRS support, and how the PHY-GRS support would broaden participation.

In the form entitled "**Justification for Supplement**," describe the student's involvement in the research project, keeping in mind that the student should contribute to the intellectual core of the funded research effort. Include a description of the student's long-range career goals. Provide an explanation of how the proposed doctoral candidate and project will serve to broaden participation.

In the **Supplementary Documents** section, provide the following:

- A brief resume, not to exceed 2 pages, for the Ph.D. student. Please do not include personally identifiable information such as social security number, date of birth, or place of birth.

- A mentoring plan to be modeled after the required NSF post-doctoral mentoring plan. Include a plan to encourage and support completion of the Ph.D. after the supplement period, and a plan to foster further career advancement.

Prepare a budget, including a budget justification for the funds requested for student support and their proposed use. The only allowable expenses in the PHY-GRS request are student stipend and fringe benefits, consistent with academic institutional practices, tuition support, and any applicable indirect costs. The total annual amount of a PHY-GRS request is typically \$60,000. The term of a PHY-GRS award may not exceed that of the underlying research project, but the PI can request an extension to the award to accommodate the PHY-GRS award. PIs must contact the cognizant PO prior to submission of a PHY-GRS request.

Sincerely,

Sean L. Jones
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Directorate for Mathematical & Physical Sciences