Research Experiences for Undergraduates: BIO REU Sites



BIO-REU Sites Program Officers

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Goals of the BIO-REU Sites program

- Provide appropriate and valuable educational experiences for undergraduate students through participation in research.
- Extend high-quality research environments and mentoring to diverse groups of students, particularly those from academic institutions with limited research programs in STEM.
- Engage a group of undergraduates in a themefocused bioscience research program that includes an immersive dive into science and professional development.



From the solicitation for BIO-REU Sites

- Typically supports 8-10 students for a 10-week summer program
- A significant fraction must come outside the host institution
- At least half must be recruited from institutions with limited research opportunities
- Project costs must be predominantly for student support, for BIO-REU sites this is at least 90% of the Total Direct Costs.
- Most awards provide 3 years of funding.
- To view recent awards, go to https://nsf.gov/awardsearch/



Other information from the solicitation



- **Participants:** Undergraduates currently enrolled in 2 or 4-year college; U.S. citizens, U.S. nationals, or U.S. permanent residents.
- Training location: Both international and domestic programs
- **Proposal deadline:** August 21, 2024 or third Wednesday in August, Annually thereafter.



Proposal preparation

• In Research.gov, select "Prepare New Full Proposal" or "Prepare New Renewal Proposal"*

*Note: If you were not the PI or Co-PI on the previous award, Research.gov will not allow preparation of the proposal as a "Renewal Proposal".

Indicate "renewal" in the "Project Elements" (see Project Summary)



Project Summary (limited to one page)

- The "Overview" is different than in a typical NSF proposal and must begin with a list of "Project Elements", as specified in the solicitation that summarizes the proposed site in terms of the site, the research focus, the number of trainees etc.
- Intellectual Merit
- Broader Impacts



Project Description

(must not exceed 15 pages)

- (a) Overview
- (b) Nature of Student Activities.
- (c) The Research Environment.
- (d) Student Recruitment and Selection.
- (e) Student and Mentor Professional Development and Expectations of Behavior.
- (f) Project Evaluation and Reporting.
- (g) Results from Prior NSF Support (if applicable).

Budget

- Project costs must be predominantly for student support.
- Student support includes stipends, housing, meals, travel, and laboratory use fees.



- Personnel support includes up to one month of salary for the PI or distributed among the PI and team members.
- An REU Site may not charge students for access to common campus facilities such as libraries or athletic facilities.
- All student costs should be entered as Participant Support Costs. Indirect costs (F&A) are not allowed on Participant Support Costs.

Merit Review principles and criteria

- Intellectual Merit (potential to advance knowledge)
- Broader Impacts (potential to benefit society and contribute to the achievement of specific, desired societal outcomes)
- Solicitation Specific Review Criteria (see solicitation for details)
 - Value of the research and professional development experience
 - Quality of the research environment
 - Appropriateness of the student recruitment and selection plans
 - Plan to promote continuation of student interest and involvement in STEM
 - Appropriateness and cost-effectiveness of the budget
 - For renewals, effectiveness of the previous Site

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Q: Can the cost of working meals be included in the budget?

A: The costs of "working meals" at seminars and other events at which student participation is required and for which there is a formal agenda are generally allowable.



Q: Does the BIO REU Sites program require the submission of Safe and Inclusive Fieldwork (SAIF) Plans under the BIO/GEO Pilot?

A: For REU Sites that will involve research off-campus or off-site, proposers are reminded that when submitting the proposal, the AOR must complete a certification that the organization has a plan in place to ensure a safe and inclusive working environment for the REU project, as described in PAPPG Chapter II.E.9.



Q: What should be included in the results from prior NSF support?

A: Outcomes should be described in sufficient detail to permit reviewers to reach an informed conclusion regarding the effectiveness of the site. This usually includes information about:

- Recruiting (number of applicants and participants and their demographics and home institutions)
- Student reporting of STEM gains from the experience
- Past participants career outcomes
- Scholarly outputs such as papers and presentations



Q: Can a proposal include other supplementary documents?

A: The proposal may include up to ten signed letters of collaboration (see PAPPG Chapter II.D.2.i(iii)).

"If the proposal submitted by Dr. [insert the full name of the Principal Investigator] entitled [insert the proposal title] is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment and Other Resources section of the proposal."



Q: What is new in solicitation 23-601?

A: The student stipend has been increased to \$700. The average cost per student per week should not exceed \$1,550 (there are exceptions—for example, an international component or remote field studies).

The non-PI faculty/professionals who will serve as research mentors for students are no longer required to be listed as Senior Personnel in REU Site proposals. However, Collaborators & Other Affiliations (COA) documents for anticipated non-PI research mentors must be uploaded into the Additional Single Copy Documents section of the proposal.



Q: What is new in solicitation 23-601? (continuation)

A: Students' names (as coauthors) are no longer <u>required</u> to be indicated with asterisks (*) in bibliographic citations in the Biographical Sketches of the PI and other Senior Personnel. However, some reviewers still find this useful information. Information about student authors should be mentioned in the proposal when describing the track record of the mentors.

NSF's Education & Training Application (ETAP) is described and encouraged as a means of managing student applications and collecting student demographic information. Some NSF units may require their REU Sites to use ETAP.



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