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NSF 18-025

Frequently Asked Questions (FAQs) for the Enabling Discovery through Genomic Tools (EDGE) Program Solicitation (NSF 18-506)

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1. **Are letters of intent or preliminary proposals required for the EDGE program solicitation?**

    No. Only full proposals should be submitted to the EDGE solicitation.

2. **Are there any annual PI and Co-PI submission limits in effect for the EDGE solicitation?**

    No. There are no PI or Co-PI limits on the number of proposal submissions to the EDGE solicitation.

3. **Are there any limits to the number of PIs or Co-PIs and/or subawardees who can participate on an EDGE proposal?**

    The PI and up to four co-PIs may be identified on the NSF cover sheet. However, there is no limit to the number of participating other senior personnel. The roles and responsibilities of other senior personnel, including lead investigators on subawards, must be described in the Project Description.

4. **What areas of science does EDGE support?**

    EDGE supports proposals focused on development of functional genomic tools, approaches, and infrastructure aimed at enabling tests of hypotheses about gene function in any organism for which such tools are presently lacking. EDGE does not support discovery-based or hypothesis-driven science of the kind supported through other programs across the Biological Sciences Directorate at NSF. Priority for support will be given to compelling projects that have the potential to accelerate advances in organismal biology research.

5. **Is EDGE only for projects developing tools like the Clustered Regularly Interspaced Short Palindromic Repeats/Cas 9 (CRISPR/Cas9) system?**

    No. Although many projects may include development of a CRISPR/Cas9 system in organisms for which this tool is presently unavailable, projects addressing any bottleneck preventing direct testing of gene function are welcome. PIs should carefully read the EDGE solicitation for complete guidance about EDGE-relevant aims.

6. **Are projects that are primarily focused on developing annotated sequence resources or comparative genomics as a means to infer gene function appropriate for EDGE proposals?**

    No. Proposals that seek support **solely** for genome sequencing, or bioinformatics tool and pipeline development are **not** appropriate for EDGE and **may be returned without review**. Likewise, projects that focus exclusively on in silico approaches to infer gene function, i.e., on generating hypotheses about gene function without direct tests of those hypotheses, are **not** appropriate for EDGE and **may be returned without review**. PIs should carefully read the EDGE solicitation for complete guidance about EDGE-relevant aims.

7. **Can I submit an EDGE proposal to NSF for a project that was submitted to or is under review at another agency?**

   EDGE proposals cannot be duplicates of proposals submitted to any other Federal agency for simultaneous consideration, except for those from Beginning Investigators (see the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter I.G.2)).

8. **How does the Project Description of an EDGE proposal differ from one that is based on the guidance found in the PAPPG?**

   Consistent with the EDGE goals of rapid development and dissemination of tools, approaches, and infrastructure, the Project Description of EDGE proposals must be developed to accommodate an award period of three years or less. The Project Description must contain, but is not limited to, the following named sub-sections in any order:

   Intellectual Merit. This named sub-section of the Project Description is required in all proposals submitted to NSF. Inclusion of this sub-section does not differ from guidance in the PAPPG.

   Challenges to enabling diverse organisms and community impact. This section should include, but is not limited to: scientific and community-based justification of the selection of organism(s) that will be enabled; justification for work on multiple organisms; clear statements identifying bottlenecks to functional genomics questions linking cause and effect in these organisms, and how the bottlenecks will be addressed in the project; a description of how one or more research communities will benefit from the proposed project; a description of how scientific progress will be accelerated in one or more research areas if the proposed project is successful; a description of scientific gaps or specific scientific questions that could be addressed if the focal organism were enabled; and a description of any impediments the communities may face in employing the proposed tools. PIs may wish to frame their proposed development of tools, approaches, and infrastructure in the context of existing technologies, whether the proposed tools are novel, or are an application of existing tools to the focal organism.

   Experimental Approach. This section should include, but is not limited to, a description of the proposed work, including goals, strategies, approaches, and methods. Highly competitive EDGE proposals include, for example, positive and negative controls, relevant repeatability metrics, and transformation efficiencies. Include only aims that are relevant to the goals of EDGE. Hypothesis-driven research beyond proof-of-concept validation of EDGE-relevant tools and resources is more appropriate for submission to other BIO programs.

   Broader Impacts. This named sub-section of the Project Description is required in all proposals submitted to NSF. Inclusion of this sub-section does not differ from guidance in the PAPPG.

EDGE proposals that do not include the four named sub-sections in the Project Description will be returned without review.

9. **Are there any required Supplemental Documents that must be included in my EDGE proposal?**

   Yes. A **Dissemination and Education Plan**, not to exceed 3 pages, must be included as a **Supplementary Document.** The Dissemination and Education Plan should include, but is not limited to, a description of how the enabling tools will be **rapidly disseminated** and how training will be provided (if necessary) to maximize the impact on the research community. An explicit expectation is that tools and methods will be disseminated before publication; PIs should include plans to accommodate this expectation. How will outreach to the community be achieved? How many researchers will be trained? How will reagents and other resources be maintained and disseminated? An implementation timetable and strategy for evaluation and management of the Dissemination and Management Plan over the award period (three years or less) should be included. **Proposals that do not include the required Dissemination and Education Plan will be returned without review**.

   For proposals involving one or more organizations as subawardees of the lead organization a **Project Management Plan**, not to exceed 3 pages, must be included as a **Supplementary Document**. The plan should include a description of communication and coordination mechanisms that will insure the project goals are met in a timely manner. This document is separate from the Data Management Plan that is required in all NSF proposals (see the PAPPG). **Proposals that involve one or more organizations as subawardees, and that do not include the required Project Management Plan will be returned without review**.

   Supplementary Documents may include **letters of collaboration** from individuals or organizations that are integral parts of the proposed project but are **not** supported by subawards. Such individuals or organizations may be involved in specific, well-defined aspects of the project, cooperation on outreach efforts, or documentation of permission to access materials or data. Letters of collaboration should focus solely on affirming that the individual or organization is willing to collaborate on the project as specified in the Project Description. The Project Description should include a description of the nature of and need for the collaboration, the role of the collaborator, and the expected outcomes/deliverables from the collaboration. **The template that must be used for the preparation of letters of collaboration is specified in the PAPPG, Chapter II,C.2.j. No additional text may be included in the letter. Proposals containing letters deviating from the required template will be returned without review**. Letters of collaboration are not required from any individual designated as a Co-PI or senior personnel, nor are letters of collaboration required from any organization that will be a subawardee in the proposal budget.

10. **Do I need to submit a BIO Proposal Classification Form for EDGE proposals?**

    Yes. All submissions to IOS and the Directorate for Biological Sciences require submission of a BIO Proposal Classification Form. FastLane will not allow processing of the proposal until this information is provided.

11. **Must I submit information about "Collaborators and Other Affiliations?"**

    Yes. Program Directors are required to select reviewers who do not have any potentially biasing relationships (personal, professional, intellectual or financial) with either the PI/Co-PI(s) or the submitting institution(s). Hence, PIs are required to submit a Single Copy Document listing their collaborators and other affiliations with their proposal. Follow the instructions in PAPPG Chapter II.C.1e. Additional information can be found on the Collaborators and Other Affiliations Information website.

12. **Do I need institutional approvals for regulated activities, such as recombinant DNA work, human subjects, vertebrate animal use, etc., for my EDGE proposal?**

    Yes. Institutional approvals are required for proposals submitted in response to the EDGE solicitation, as specified in the PAPPG.

13. **How do I apply for summer support for REU students? Can I still apply for an REU supplement?**

    Investigators are reminded that support for undergraduate students involved in carrying out research under NSF awards should be included as part of the research proposal itself instead of as a post-award supplement to the research proposal, unless such undergraduate participation was not foreseeable at the time of the original proposal. If an REU supplement is being requested, a supplementary document of up to 3 pages should be included to describe the intended activities of the REU students. All student costs should be entered in the proposal budget as Participant Support Costs. (Please note that indirect costs (F&A) are not allowed on Participant Support costs for REU supplements.) See the REU solicitation NSF 13-542 for complete details about preparing an REU supplement request.

14. **Are there minimum or maximum budget limits for EDGE track proposals?**

    There is no minimum; however, requested budgets should not exceed $2,000,000 for a period not to exceed three years. Budgets and project scope may require revision based on recommendations and guidance of the EDGE program. Researchers are encouraged to submit tightly focused projects with well-justified budgets.

15. **Are there solicitation-specific review criteria that reviewers will be asked to use in evaluating EDGE proposals?**

    Yes. As with all NSF proposals, panelists/reviewers will be instructed to evaluate the intellectual merit and broader impacts of the proposed project. In addition to using intellectual merit and broader impacts review criteria, reviewers will be asked to evaluate EDGE proposals using the Solicitation Specific Review Criteria that are listed in the EDGE solicitation.

    These criteria are:

- The potential catalytic impact on advancing research and on associated research communities of enabling the organisms named in the proposal;
- The potential catalytic impact on advancing research and on associated research communities of the enabling tools, approaches, and infrastructure that are proposed;
- The feasibility of the proposed methods and approaches to achieve the stated goals and likelihood of success;
- The quality and potential for high impact of the Dissemination and Education Plan; and,
- For those proposals involving multiple organizations, the quality of the Project Management Plan and likelihood of successful project coordination.

16. **May I request that my EDGE proposal be co-reviewed between a program in IOS and another program in BIO or NSF in general?**

Typically, EDGE proposals are not co-reviewed. EDGE is a program that aims to accelerate advances in knowledge about the structure and function of organisms, particularly the relationship between genomes and phenomes. Proposals submitted to the EDGE solicitation should be focused on developing tools, approaches, and associated infrastructure to enable direct tests of hypotheses about gene function in diverse organisms for which such tools are presently lacking. As part of the Project Description, PIs are asked to identify one or more research communities and/or research areas that will benefit from the proposed project. IOS program descriptions can be found at https://www.nsf.gov/div/index.jsp?div=IOS. If areas of research other than those supported by IOS will benefit from the proposed project as well, such additional impacts may be described in the proposal. However, the primary rationale for support of an EDGE project must be about accelerating research progress in organismal biology. Highly competitive EDGE proposals will present a compelling case for the potential of the project to enable direct tests of hypotheses about gene function in organism(s) and will include carefully developed plans to disseminate those new resources and train other researchers in their use.

17. **What feedback will I receive on my EDGE proposal?**

EDGE proposals will be reviewed by a panel of scientists and/or ad hoc (i.e., external) reviewers with expertise in functional genomics tool development and in organismal biology. You will receive a summary of the panel discussion (the panel summary), as well as the individual reviews from panelists and/or the ad hoc reviewers.

18. **What is the expected success rate of EDGE track proposals?**

Because EDGE is a relatively new activity, we cannot anticipate the number of proposals that will be submitted, and thus we cannot predict the success rate. However, IOS anticipates making as many as ten awards per year given that approximately $6,000,000 will be reserved annually to support this activity depending on availability of funds.

19. **If I receive an EDGE award, when can I expect to receive funding?**

Project start dates will likely not be earlier than August 1 in the year the proposal was submitted.

20. **What if my question is not addressed by these FAQs?**

Please ask us! For timely responses to your questions, send an email message to the Program Directors on the EDGE Working Group at BIOIOSEDGE@nsf.gov.