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NATIONAL SCIENCE FOUNDATION 4201 WILSON BOULEVARD ARLINGTON, VIRGINIA 22230

NSF 16-017

## Frequently Asked Questions (FAQs) for NSF 16-505, FY 2016 IOS Core Programs Solicitation

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- 35. Do I need institutional approvals for regulated activities, such as recombinant DNA work, human subjects, vertebrate animal use, etc., for the preliminary proposal?
- 36. What are Conflicts of Interest (COIs), why do you want to know about them, and how do I know if I have any?
- **37.** My research idea falls between two programs within IOS or between two programs found in different divisions or directorates. How do I submit the preliminary proposal for consideration by both programs?
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#### 1. What types of proposals are covered in this solicitation?

Core track preliminary proposals and invited full proposals EDGE track proposals

### 2. Which track in this solicitation requires preliminary proposals, and which track requires Letters of Intent?

All proposals submitted to the Core track, including those responsive to the Research in Undergraduate Institutions (RUI) solicitation, require a preliminary proposal.

This preliminary proposal requirement does not include proposals to the EDGE track or to other solicitations (e.g., Research Coordination Networks, Doctoral Dissertation Improvement Grants, CAREER, Plant Genome Research Program, Basic Research to Enable Agricultural Development), or special proposals described in the GPG (i.e., Grants for Rapid Response Research (RAPID), EArly Concept Grants for Exploratory Research (EAGER), Facilitation Awards for Scientists and Engineers with Disabilities (FASED), conference and workshop proposals, and requests for supplemental funding).

The EDGE track requires submission of a Letter of Intent.

# 3. Should preliminary proposals concerning plants and their associated symbiotic partners that normally would be reviewed by the Symbiosis, Defense and Self-recognition (SDS) program be submitted under this solicitation?

No. A new joint solicitation concerning research on plant-biotic interactions will be announced inÁ April 2016, with an anticipated full proposal submission deadline in July 2016. The tentativelyÁ entitled Plant-Biotic Interactions (PBI) Program is a joint NSF/BIO/IOS and USDA/NIFAÁ

solicitation. Preliminary proposals submitted to the Core track of this NSF/IOS solicitation that areÁ appropriate for the PBI program will be returned without review and investigators advised to submitÁ full proposals under the new solicitation. Note that preliminary proposals will not be required priorÁo full proposal submission to the PBI Program.Á

### 4. Will the new PBI program consider proposals covering the same breadth of plant research as was reviewed by the NSF/IOS Symbiosis, Defense and Self-recognition (SDS) program?

Yes. The joint NSF-USDA PBI program will accept for review all proposals concerning plants, and their associated symbionts, microbes, and insect pathogens that previously were reviewed by the Symbiosis, Defense and Self-recognition (SDS) program.

#### 5. My Core track funding request is a competitive renewal application for a previously NSFfunded research project. Do I need to submit a preliminary proposal?

Yes. All proposals to IOS are treated as new proposals, including projects based on findingsÁ resulting from previous NSF funding.Á

### 6. Can I submit a Core track preliminary proposal to NSF for a project that was submitted to or is under review at another agency?

Yes; however, invited full proposals cannot be duplicates of proposals to any other Federal agency for simultaneous consideration, except for Beginning Investigators (see GPG Chapter I.G.2).

#### 7. What feedback will I receive on my Core track preliminary proposal?

Preliminary proposals will normally be reviewed by a panel of scientists in the discipline, and you will receive a summary of their discussion (the panel summary), as well as individual reviews from three panelists. If you are invited to submit a full proposal, you will have this feedback to help you in preparing the full proposal. We strongly advise that you take this feedback into account, both in full proposal preparation and in any resubmission of the preliminary proposal.

#### 8. What criteria will panelists use to evaluate Core track preliminary proposals?

Each preliminary proposal will be assigned to three panelists for written reviews. All NSF rules for Confidentiality and Conflicts of Interest will be followed. The rating scale for written reviews will be: Excellent, Very Good, Good, Fair, and Poor. A panel summary describing the key points of the panel discussion and the rationale for the proposal's placement in one of the five panel ranking categories (Outstanding, High, Medium, Low, and Not Competitive) will be provided for each proposal.

As with all NSF proposals, panelists/reviewers will be instructed to evaluate the intellectual merit and broader impacts of the proposed project. Preliminary proposals contain a shorter project description (1 personnel page plus 4 pages of text) and lack much of the documentation associated with a full proposal, including budget, budget justification, equipment and other resources, and current and pending support. Consequently, we expect the reviews of preliminary proposals to focus on the following critical aspects of the work: the questions driving the research, the goals expected to be accomplished, and the approaches employed in the experimental design.

While reviewing, panelists are asked to consider:

- · Are the ideas innovative or potentially transformative?
- Are the ideas conceptually well grounded?

Are the experimental approaches and experimental design feasible and logically linked to the central ideas?

- Are the PIs well qualified and experienced enough with the approaches to be able to conduct the research?
- What risks are involved? Can they be overcome?
- What is the potential impact of the science?
- Is there a convincing and significant effort made towards broader impacts?

A strong preliminary proposal is one in which the logical flow and significance of the proposed line of investigation are articulated clearly and the broader impacts of the work are apparent. In other words, panelists are asked to identify preliminary proposals that address questions and/or ideas that are most likely to lead to large advances in the field.

Panelists do **NOT** make specific Invite/Do Not Invite recommendations. These recommendations are made by the Program Directors after the conclusion of the panels.

### 9. What criteria will be used to make a decision to Invite or Not Invite a Core track full proposal following the preliminary proposal stage?

Program Directors will make Invite/Do Not Invite decisions based on the scientific merit and broader impacts as well as the balance of awards among sub-disciplines, geographic distribution, types of institutions, and the potential contribution of each award to broadening the participation of individuals from groups traditionally underrepresented in science. These latter considerations comprise the program's "portfolio balance".

#### 10. How soon will I learn whether a Core track full proposal is invited?

Invitations to submit full proposals will be issued in May each year.

#### 11. What is the expected invitation rate for Core track preliminary proposals?

Over the course of the first four years of running the merit review process requiring submission ofÁ preliminary proposals, the invitation percentage for full proposals has generally been betweenÁ 20%-25% of the number of preliminary proposals. We expect future invitation rates orÁ percentages to be similar, depending on the number of preliminary proposals submitted eachÁ January. Depending on the number of preliminary proposals received and the amount of fundingÁ expected in the following fiscal year, the invitation rate may be adjusted to ensure an appropriateÁ success rate in the full proposal competition (see FAQ #2Í).Á

#### 12. If I am not invited to submit a full proposal, may I resubmit the preliminary proposal?

The preliminary proposal deadline is in January of each year, and there is no limit on the number of times you may resubmit a preliminary proposal. However, you are strongly advised to take comments from the reviews and panel summary into account when re-submitting, and you are encouraged to talk to your Program Director.

### 13. How does the Project Description of the Core track preliminary proposal differ from that of an invited full proposal?

The first page of the preliminary proposal project description (the Personnel page) must list the PI, co-PI(s), and other senior personnel (including leads for sub-awards). For the purposes of this solicitation, senior personnel include the Principal Investigator (PI), any co-PIs, and any other researchers actively involved in achieving and managing the intellectual merit or broader impacts

goals of the project. Other senior personnel may include individuals who will provide essentialÁ expertise and intellectual engagement in a small but significant component of the overall projectÁ such as the lead investigator for a sub-award. Post-doctoral scholars may be listed as other seniorÁ personnel. Consultants or collaborators who provide specific technical expertise on a limitedÁ portion of the project are not considered other senior personnel, and therefore should not be listedÁ on the Personnel page. They should, however, be listed on the COI sheet (see FAQ #3Î).Á

Therefore, project personnel listed on this page should include those people that would be listed onÁ the cover page as PIs or co-PIs in a full proposal, those that would be listed on the budget pages ofÁ a full proposal as senior personnel (PI/PD, Co-PI's, Faculty and Other Senior Associates), andÁ those people who would be participating in similar lead roles on a sub-award in a full proposal. If aÁ multi-institutional Collaborative Research proposal is planned, personnel as listed above from eachÁ of the collaborative proposals should also be listed. Each name should be followed by theÁ institutional affiliation, and a single sentence describing that individual's role in the project. No otherÁ text should appear on this page.Á

For each individual listed on the Personnel page, you must include a Biographical Sketch (2-pageÁ limit for each). For individuals who are not listed on the Cover Sheet because of space limitationsÁ on that form, but who are listed on the Personnel page, append their Biographical Sketches to theÁ Biographical Sketch of one of the individuals who are listed on the Cover Sheet.Á

The following 4 pages (pages 2-5) comprise the preliminary proposal narrative, termed Section 2, Project. The general significance of the work, efficacy of the experimental plan, feasibility of technical approaches, and broader impacts plan should be clearly and concisely presented. The available space should be used wisely, with figures limited to essential data or diagrams. Duplication of text between the project summary and project description should be avoided.

For a preliminary proposal the references are limited to 3 pages. The reference section does not count towards the Project Description page limits.

#### 14. Are preliminary data required in the preliminary proposal?

No; however, a PI may include preliminary data in support of the feasibility of the research approach at his/her discretion.

#### 15. Are results from prior support required in a preliminary proposal?

Although not required, results from previous support may be included in the preliminary proposal at the discretion of the PI.

### 16. If a Core track full proposal is invited but not funded, do I have to start over with a preliminary proposal?

Yes. If your full proposal is declined, you must begin again with a preliminary proposal to one of the IOS core programs. It is strongly advised that you consider the comments from both preliminary and full proposal reviews and panel summaries when re-submitting and contact your Program Director if you have any questions or concerns.

### 17. I was invited to submit a Core track full proposal, but did not do so in this cycle. Do I need to start over with a preliminary proposal the following cycle?

Yes, you would have to submit a preliminary proposal at the next January deadline. You may only submit a full proposal for the August full proposal deadline for which you were invited.

### 18. May I add a co-PI or other senior personnel who were not listed on the Personnel page of the preliminary proposal to the invited full proposal in the Core track?

You may add such senior personnel only after receiving the prior permission of the cognizantÁ Program Director. The Program Directors understand that PIs may wish to add senior personnelÁ based on advice written in panelist reviews and panel summaries stemming from merit review ofÁ preliminary proposals, and are more than willing to discuss these possible changes. However, PIsÁ should carefully consider the expertise needed to achieve the goals of the project plan beforeÁ submitting the preliminary proposal for review because panelists on the preliminary proposalÁ review panels are asked to consider whether the project plan is feasible and whether the seniorÁ personnel are qualified to conduct the research. Permission to add senior personnel to an invitedÁ full proposal may not be granted if there is no suggestion of the need to do so in the reviewÁ materials of the preliminary proposal.Á

#### 19. Will reviewers for full proposals see the reviews I received for the preliminary proposal?

No. All proposals to IOS are treated as new proposals.

### 20. Will investigators working in the area of plant-microbial symbioses be able to submit proposals to the EDGE track of this solicitation?

Yes. Proposals focused on development of functional genomic tools, approaches and infrastructure aimed at enabling genomic manipulation of plant-microbial symbioses may be submitted to the EDGE track of the IOS Core Programs solicitation.

#### 21. How are EDGE track Letters of Intent (LOI) used?

Letters of intent are for review planning purposes only. They are not externally evaluated nor areÁ they used to determine funding. However, submissions of LOI are required prior to submissions Ápf EDGE proposals. EDGE proposals will be returned without review if an LOI was not submitted Ápn the LOI submission deadline.Á

### 22. Do the annual PI and co-PI submission limits in effect for Core track preliminary proposals (2 submissions per PI or co-PI per year) apply to EDGE track?

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

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

EDGE proposals cannot be duplicates of proposals to any other Federal agency for simultaneous consideration, except for Beginning Investigators (see GPG Chapter I.G.2).

#### 24. If I receive a Core and/or EDGE track award, when can I expect to receive funding?

Project start dates will likely not be earlier than January 1 in the year following submission of the full proposal.

#### 25. What is the expected success rate of Core track proposals?

The success rate for invited full proposals is anticipated be in the range of 25%-30%, depending on the invitation rate and availability of funds.

#### 26. What is the expected success rate of EDGE track proposals?

Because EDGE is a new activity, we cannot anticipate the number of proposals that will be submitted and thus we cannot predict the success rate. However, the division anticipates making as many as ten awards per year given that the division has reserved approximately \$10,000,000 annually to support this activity.

#### 27. Are REU supplements available for Core and EDGE track submissions?

Yes.

### 28. 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.

For individuals with ongoing awards given before FY 2012, supplemental funding requests may be submitted through FastLane as in the past. The target date for such submission is 1 March.

As always if you have questions, contact a Program Director.

#### 29. Are there minimum or maximum budget limits for CORE track proposals?

No. Requested budgets should be commensurate with the scope of the proposed project.

#### 30. Are there minimum or maximum budget limits for EDGE track proposals?

There is no minimum; however, requested budgets should not exceed \$3,000,000 for a period not to exceed three years.

### 31. How does the Project Description of an EDGE track proposal differ from that of a Core track proposal?

Because the overarching aim of the EDGE track is to support development of functional genomicÁ tools in emerging model organisms, and thereby enable the research community to utilize the toolsÁ to achieve more rapid advances in their research, timelines for project plans must span three yearsÁ or less. The Project Description must contain, but is not limited to, the following sub-sections in Áany order:Á

• **Challenges to enabling emerging model organisms and community impact.** This section should include, but is not limited to: justification of the selection of organism(s) that will be used; identification of bottlenecks to functional genomics questions linking cause and effect in these organisms; identification of one or more research communities, and/or research areas that will benefit from the proposed project, and a description of any impediments the communities may face in employing the proposed tools. PIs may wish to discuss the proposed research in the context of existing technologies; whether the proposed tools are novel, or an application of existing tools to emerging model organisms.

- **Experimental Approach.** This section should include, but is not limited to, a description of A the proposed work, including goals, strategies, approaches and methods. A
- Dissemination and Education Plan. This sub-section must be included within the requiredÁ sub-section "Broader Impacts of the Proposed Work" in the Project Description. TheÁ Dissemination and Education Plan should include, but is not limited to, a description of howÁ the enabling tools will be rapidly disseminated, and how training will be provided (ifÁ necessary) to maximize the impact on the research community. How will outreach to theÁ community be achieved? How many researchers will be trained? How will reagents andÁ other resources be maintained and disseminated?Á

## A 32. How do the Broader Impacts of an EDGE track proposal differ from that of a Core track proposal?

ÁWWEDGE projects should include a Dissemination and Education Plan (as described in FAQ#31).A This plan does not preclude describing other broader impacts of the project.A descriptionA other broader impacts is strongly encouraged.A

#### 33. Is a Project Management Plan required for EDGE and/or Core proposals?

A project management plan is not required for Core track proposals. However, a project management plan is required for EDGE proposals that involve one or more organizations as sub-awardees of the lead organization.

# 34. Do I need to submit a proposal classification form for Core track preliminary and full proposals? What about EDGE track proposals? This form is not covered in the Grant Proposal Guide (GPG). What about other things that are not covered in the GPG?

Yes. All submissions to IOS and the Directorate for Biological Sciences require a proposal classification form.

In general solicitation instructions focus on how the requirements differ from what is stated in the Grant Proposal Guide, and solicitations take precedence over the Grant Proposal Guide. Solicitation instructions may require that you include elements in your proposals that are not covered in the GPG, however. In the event that a particular issue is not mentioned in the solicitation, you should follow the instructions in the Grant Proposal Guide.

### 35. Do I need institutional approvals for regulated activities, such as recombinant DNA work, human subjects, vertebrate animal use, etc., for the preliminary proposal?

Institutional approvals are not required for preliminary proposals. However, institutional approvals are required for full proposals in both the Core and EDGE tracks, as specified in the Grant Proposal Guide.

### 36. What are Conflicts of Interest (COIs), why do you want to know about them, and how do I know if I have any?

Program Directors are required to select reviewers who do not have any potentially biasing relationships (personal, professional, intellectual or financial) with either the Pl/co-Pl(s) or the submitting institution(s). Hence, Pls are required to submit an Excel Workbook that lists all Conflicts of Interest (COIs).

The IOS COI template contains a total of five tabs. Please read the Instructions on the first tab

carefully and fill out the template as instructed. The Division of Environmental Biology (DEB) has its own template that is different from the IOS COI template. Please make sure you have the correct version for the division you intend to submit to.

Using the template, compile an Excel Workbook that identifies conflicts of interest (COIs) for all persons listed on the Personnel page (i.e., first page) of the Project Description. Conflicts to be identified are (1) Ph.D. dissertation advisors and advisees, (2) collaborators or co-authors, including postdoctoral researchers, for the past 48 months, (3) co-editors within the past 24 months, (4) spouse or other relatives who might be in a relevant field, and (5) any other individuals with whom, or institutions with which, the senior personnel (PI(s), co-PI(s), and any named personnel) have financial ties, including advisory committees (specify type), boards of directors, or prospective employees.

The completed Excel Workbook should be emailed to IOScoispreadsheet@nsf.gov immediately after you submit your proposal, but no later than the proposal deadline. Do not use the temporary Fastlane ID or a Research.Gov ID to fill out the COI template. You must use only an assigned NSF Proposal ID, which should be 7 digits long and will start with the fiscal year numbers (e.g., for FY16, all the Proposal ID's will start with "16"). Do not send in the COI template until you have been assigned the official NSF Proposal ID at the time of submission. Please contact a Program Director if you have questions.

# 37. My research idea falls between two programs within IOS or between two programs found in different divisions or directorates. How do I submit the preliminary proposal for consideration by both programs?

In IOS, preliminary proposals submitted to the Core track will not be co-reviewed with other programs. Thus, you will need to choose a single IOS program for your preliminary proposal submission. In general, it is the primary question addressed by the proposal that determines which program it belongs in rather than the species, methods or measures used. If you have any questions regarding which IOS program would be best for your submission, please contact a Program Director. EDGE track submissions are only submitted to IOS.

### 38. May I request that my invited Core track or EDGE track proposal be co-reviewed between a program in IOS and another program in BIO or NSF in general?

You may alert the IOS Program Director(s) to other programs that might be relevant to your proposal. However, he/she cannot guarantee co-review will occur.

#### 39. What if my question is not addressed by these FAQs?

Please ask us! Contact information for Program Directors and management in IOS can be found in the solicitation and at the Division website (http://www.nsf.gov/ios).