



**National Science Foundation**  
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## **FAQs Basic Research to Enable Agricultural Development (BREAD)**

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## ELIGIBILITY

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### 1. **Who can be PI on a BREAD proposal?**

PIs will be expected to hold a position at an eligible institution within the United States. Eligible institutions will include US academic institutions, US non-profit research organizations including museums, research laboratories, professional societies and similar organizations in the United States that are directly associated with educational or research activities, and consortia led by the eligible organizations listed here. Proposers are encouraged to contact a program director if there are questions about eligibility of institutions or potential Co-PIs.

### 2. **Does the PI have to be a US citizen?**

Although the PI must hold an appointment at an eligible US institution (see FAQ

1), US citizenship is not required for PIs, Co-PIs, Senior Personnel or other project members.

**3. On how many proposals can an investigator serve as a PI, Co-PI or other Senior Personnel?**

An investigator may be a PI or Co-PI on only one proposal.

**4. Will non-US institutions be eligible to receive funding?**

Yes. Subawards may be made to US or non-US academic institutions, research organizations, research laboratories, professional societies and similar organizations that are directly associated with educational or research activities. The grantee should assure, however, that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that all necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities. Further, before proposal submission, all proposed US or non-US subawardee institutions must be registered with Central Contractor Registration (<http://www.ccr.gov>). This registration takes approximately 2-3 weeks, and there are no financial requirements for registration.

**5. How can industry partners participate in the Program?**

Partnerships with industry are encouraged where they enhance the proposed research activities. PIs should present a plan for intellectual property rights management within the supplementary documents (A-1) section of the proposal. Proposers with questions about potential roles of industrial partners are encouraged to contact the program director.

**6. Is a developing country participant required?**

No, but developing country partnerships are strongly encouraged. The partnership should clearly strengthen the research team, the project goals, and show evidence of meaningful participation of the developing country Co-PI and/or Senior Personnel in the proposed research.

**7. Which countries are eligible to participate in the BREAD program?**

The program is not intended to target any specific developing world country or region. Scientists in most countries of the world are eligible to serve as Co-PIs or other types of collaborators if they hold positions with eligible organizations. The grantee should assure, however, that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.

**8. Will a Letter of Intent be required?**

Yes, a Letter of Intent is required. The deadline for submitting a Letter of Intent is August 5, 2009. Letters of Intent will assist the program staff with advance planning for the review process. However, feedback on Letters of Intent will not be provided to PIs.

**9. What is the procedure for sending in a Letter of Intent?**

Letters of Intent should be submitted via Fastlane. Click on the "FastLane FAQs" section at <https://www.fastlane.nsf.gov/fastlane.jsp> for instructions on how to submit a letter. Please note that all Letters of Intent will automatically be removed from the system after the Program proposal deadline date.

**10. Will it be possible to submit a Letter of Intent after the August 5, 2009 deadline?**

It will not be possible to submit Letters of Intent after the deadline, and as a consequence, it will not be possible to submit a full proposal to this competition if the Letter of Intent deadline is missed. Proposals submitted without a Letter of Intent will be returned without review.

**11. Will the Letters of Intent be reviewed?**

No. The Letter of Intent will be used solely to assist the program staff with advance planning for the review process.

**12. Do the Letters of Intent require a budget?**

No, but an overall estimate of the total request would be useful information to include to help the NSF planning process.

## **PROPOSAL PREPARATION AND SUBMISSION**

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**13. Are multi-investigator proposals submitted through the "Collaborative Proposal" module accepted in the BREAD Program?**

No, a proposal from a consortium of organizations must be submitted as a single proposal with one US organization serving as the lead and all other organizations as subawardees. Proposals submitted using the "Collaborative Proposal" module will be returned without review.

**14. Do subawardees need to be registered with FastLane and the Central Contractor Registration? Do subawardees need a DUNS number?**

Yes. All US and non-US subawardees need to be registered with Fastlane and CCR, and have a DUNS number. The Fastlane registration guide is available [online \(https://www.fastlane.nsf.gov/NSFHelp/Printdocs/FastLane\\_Help/pd\\_fastlane\\_registration/pd\\_fastlane\\_registration.pdf\)](https://www.fastlane.nsf.gov/NSFHelp/Printdocs/FastLane_Help/pd_fastlane_registration/pd_fastlane_registration.pdf). Check to see if your organization is already registered at the [CCR website \(https://www.bpn.gov/](https://www.bpn.gov/)

CCRSearch/Search.aspx.) CCR registration may be done through <http://www.ccr.gov>. Institutions will also need a DUNS number. If your organization does not have a DUNS number, use the [Dun & Bradstreet \(D&B\) online registration \(http://fedgov.dnb.com/webform\)](http://fedgov.dnb.com/webform) to receive one free of charge.

**15. Where are instructions for using FastLane?**

If you are a new user of FastLane, you should first consult with the Authorized Organizational Representative (AOR) at your institution well in advance of the proposal deadline dates to obtain the support you will need during the submission process. The NSF home page contains more details about Using FastLane as well as a [FastLane demonstration site \(https://www.fastlane.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane\\_Help/fastlane\\_help.htm#fastlane\\_help\\_for\\_proposal\\_functions.htm\)](https://www.fastlane.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane_Help/fastlane_help.htm#fastlane_help_for_proposal_functions.htm). Submitters are urged to pay close attention to all the information given in the [Grant Proposal Guide \(http://www.nsf.gov/pubs/policydocs/pappguide/nsf09\\_29/gpg\\_2.jsp#IVB\)](http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_29/gpg_2.jsp#IVB). Careful attention should also be paid to details specific for BREAD proposals that are outlined in the Program Solicitation.

**16. What is the deadline for submission of Letters of Intent and full proposals for the FY 2009 competition?**

The Letter of Intent deadline is August 5, 2009 and the full proposal deadline is September 9, 2009.

**17. Will it be possible to submit full proposals after the September 9, 2009 deadline?**

No. Proposals submitted after the deadline will be returned without review.

**18. What start date should be requested?**

The start date may be as early as January 15, 2010 and as late as September 15, 2010. The start date that best fits the project timetable should be requested.

**19. How many awards are anticipated?**

Approximately 10-20 awards are anticipated in this competition, subject to availability of funds.

**20. What is the maximum award size for a BREAD project?**

Budget requests should be developed commensurate with the support needed to implement the project goals. Most projects are anticipated to run for up to 3 years, with release of each funding increment contingent on the project meeting annual financial and technical reporting requirements. Awards are anticipated to range in size from a modest single institution project receiving up to \$150,000 per year to larger projects that might involve up to 4 institutions (1 lead institution and up to 3

subawardees) receiving up to \$600,000 per year. Requests that would fall outside of the guidelines should be discussed with the BREAD Program Director prior to proposal submission.

**21. Is there an optimal number of partner institutions or partner countries in a BREAD proposal?**

This will vary with the project and the research plan. PIs are advised to put together teams that work best for the project they propose and stay within budget guidelines.

**22. How much funding can be used for salary support for the PI, Co-PI or other senior project personnel?**

Salary support should be requested that is commensurate with the time commitments to the project. As a general policy, NSF limits salary compensation for senior project personnel to no more than two months of their regular salary in any one year, as noted in NSF's Grant Proposal Guide (GPG) guidelines. This limit includes salary compensation received from all NSF-funded awards. Further, these guidelines are applicable to the lead institution and all US or non-US subawardees.

**23. Can BREAD funds be used to support the salary or travel-related expenses of non-US participants?**

Yes. Funds for non-US participants working on the project should be requested through the subaward to the appropriate non-US institution, consistent with NSF's GPG guidelines. Requests for travel related to the project for other collaborating personnel may be made through the primary or subaward budgets.

**24. Is there a limit on the amount of funds requested for travel?**

While there is no upper limit, requests for travel funding should be justified in the context of the proposed research activities. The US Fly America Policy regulations are applicable.

**25. Are there any limits on indirect costs to non-US subawardees?**

Non-US subawardees may not request indirect costs unless evidence is provided as a Single Copy Document that the foreign grantee has a previously negotiated rate agreement with a US Federal Agency that has a practice of negotiating rates with foreign entities. Non-US subawardees that do not have a US Federal Agency negotiated indirect cost rate agreement may claim costs associated with compliance under direct costs (G.6 Other) as long as the specific items are described in the Budget Justification. Eligible costs are limited to 8% of direct costs. Organizations may not claim both indirect costs and the direct cost of compliance.

**26. Should subaward budgets be in US dollars or local currency?**

All budgets must be in US dollars. No compensation will be allowed to adjust for fluctuations in the exchange rate of the dollar to other currencies.

Yes. A letter expressing an intent to collaborate is required from any non-US subawardee institution or any non-US scientist listed as a Co-PI who would not receive a subaward, to be filed as a supplementary document.

## **MENTORING AND TRAINING**

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**27. What kinds of mentoring should be provided to postdoctoral researchers?**

Each proposal that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals as a supplementary document (section A-5, maximum 1 page). The proposer must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, irrespective of whether they reside at the submitting organization, any subawardee organization, or at any organization participating in a simultaneously submitted collaborative project. Examples of mentoring activities include, but are not limited to: career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices. The proposed mentoring activities will be evaluated as part of the merit review process under the Foundation's broader impacts merit review criterion. Proposals that include funding to support postdoctoral researchers, and, do not include the requisite mentoring plan will be returned without review ([see GPG Chapter IV.B](http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_29/gpg_2.jsp#IVB)).[http://www.nsf.gov/pubs/policydocs/pappguide/nsf09\\_29/gpg\\_2.jsp#IVB](http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_29/gpg_2.jsp#IVB)

**28. Can BREAD funding support students at US institutions who are not US citizens or permanent residents?**

Yes. Citizenship or permanent residence is not a requirement to participate in a BREAD project.

**29. Is it acceptable to train students under a BREAD project? If so, would it matter where the PhD was granted?**

Yes. Citizenship or permanent residence is not a requirement to participate in a BREAD project.

## **PROGRAM FOCUS AND PROPOSAL REVIEW**

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**31. Since BREAD is administered through the Plant Genome Research**



**Program, do I already have to have such a grant to apply and/or does the work have to employ a clear genomics approach?**

No, neither of these are specific requirements.

**32. Is the BREAD Program replacing the Developing Country Collaborations in Plant Genome Research (DCC-PGR) opportunity?**

No, the DCC-PGR Program will continue. The BREAD Program is considered to be complementary to the DCC-PGR Program but allows for a more extensive collaboration with a developing country focus and the potential to fund the foreign collaborators.

**33. Could you give a few examples that would illustrate the difference between a basic research project that might be more suitable to an NSF program offered through BIO organizations(e.g., Arabidopsis 2010) and one that would be more acceptable for consideration by BREAD**

A project that aims to understand defense responses of plants to disease by defining complex signaling networks and the functions of all the individual genes involved might be more suitable for a program like Arabidopsis 2010; on the other hand, a project that aimed to draw upon the latest knowledge of such signaling networks to propose a novel strategy for control of an important disease affecting crop(s) in the developing world, might be more suitable for BREAD. Similarly, a project aimed at defining genes that control apomixis in a model plant might be more appropriate for consideration by other programs, whereas a proposal to use a novel approach that would exploit the knowledge of such genes for creation of an apomictic crop plant important to small-holder farmers in the developing world might be more suitable for BREAD. Proposals to develop new genomics tools broadly applicable to a wide range of crop plants might be suitable for consideration through the Plant Genome Program; a proposal to develop a unique low-cost platform for Single Nucleotide Polymorphism detection in a crop uniquely important to the developing world might be considered by BREAD provided the proposal showed true innovation. A proposal to identify and characterize all the genes that control seed size in plants would be too broad for BREAD, but BREAD would consider a proposal aimed at exploiting our knowledge of such genes to enhance seed size in a crop important to the developing world where it could be convincingly argued that this would prove highly beneficial to that crop.

**34. Will BREAD fund downstream development activities?**

No.; BREAD is aiming to fund projects that are at the stage of proof-of-concept and involve cutting-edge scientific or engineering approaches.

**35. Could you give a few examples that would illustrate the difference between a basic research project that might be more suitable to an NSF program offered through BIO organizations(e.g., Arabidopsis**



## **2010) and one that would be more acceptable for consideration by BREAD?**

A project that aims to understand defense responses of plants to disease by defining complex signaling networks and the functions of all the individual genes involved might be more suitable for a program like Arabidopsis 2010; on the other hand, a project that aimed to draw upon the latest knowledge of such signaling networks to propose a novel strategy for control of an important disease affecting crop(s) in the developing world, might be more suitable for BREAD. Similarly, a project aimed at defining genes that control apomixis in a model plant might be more appropriate for consideration by other programs, whereas a proposal to use a novel approach that would exploit the knowledge of such genes for creation of an apomictic crop plant important to small-holder farmers in the developing world might be more suitable for BREAD. Proposals to develop new genomics tools broadly applicable to a wide range of crop plants might be suitable for consideration through the Plant Genome Program; a proposal to develop a unique low-cost platform for Single Nucleotide Polymorphism detection in a crop uniquely important to the developing world might be considered by BREAD provided the proposal showed true innovation. A proposal to identify and characterize all the genes that control seed size in plants would be too broad for BREAD, but BREAD would consider a proposal aimed at exploiting our knowledge of such genes to enhance seed size in a crop important to the developing world where it could be convincingly argued that this would prove highly beneficial to that crop.

### **36. Will BREAD fund downstream development activities?**

No. BREAD is aiming to fund projects that are at the stage of proof-of-concept and involve cutting-edge scientific or engineering approaches.

## **POST-AWARD MANAGEMENT**

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### **37. Will there be a way for all grantees to interact?**

Yes, the Program will hold an annual meeting in the United States during which key personnel will present their findings and have numerous opportunities to interact. Be sure to request travel money for this annual meeting for key US and non-US personnel.

### **38. What expectations does NSF have for oversight and monitoring of awards particularly with respect to financial accountability and research ethics?**

The program solicitation requires PIs together with their home institutions to develop and submit an "Oversight Plan" for managing any and all subawards. The Oversight Plan should address such functions as financial accountability, compliance with specific research-related regulations (e.g., use of recombinant DNA, agricultural bioterrorism, animal and human subjects, etc.), and the ethical

conduct of research. PIs can request in the proposed budget resources to enable the PI and his/her institution to conduct monitoring, oversight and training, as appropriate, to ensure successful project outcomes.