

## Developing and Demonstrating Nanosensor Technology to Detect, Monitor, and Degrade Pollutants Request For Applications (RFA)

Informational Webinar Questions and Answers

August 14, 2023

### Application Information

- **On an application, can there be only one principal investigator (PI) per university or only one PI for the project?**

Answer: There can be only one lead PI on the application. Other investigators who are considered to be key personnel can be listed as co-PIs or Investigators.

As stated in the RFA: “Multiple Investigator applications may be submitted as: (1) a single Lead Principal Investigator (PI) application with Co-PI(s) or (2) a Multiple PI application (with a single Contact PI). If you choose to submit a Multiple PI application, you must follow the specific instructions provided in Sections IV and V of this RFA. For further information, please see the [EPA Implementation Plan for Policy](#) on Multiple Principal Investigators.”

- **Can universities submit a joint application (e.g., from 2 universities)?**

Answer: Yes, universities can submit a joint application. One university must serve as the applicant/lead institution and the other universities would be subawardees. In addition, applicant institutions and PIs may submit more than one application if each application is significantly different.

As stated in the RFA: “Groups of two or more eligible applicants may choose to form a coalition and submit a single application under this RFA; however, one entity must be responsible for the grant. Coalitions must identify which eligible organization will be the recipient of the grant and which eligible organization(s) will be subrecipients of the recipient (the “pass-through entity”). *Subawards* must be consistent with the definition of that term in 2 CFR 200.1 and comply with EPA’s [Subaward Policy](#). The pass-through entity that administers the grant and subawards will be accountable to EPA for proper expenditure of the funds and reporting and will be the point of contact for the coalition. As provided in 2 CFR 200.332, subrecipients are accountable to the pass-through entity for proper use of EPA funding.”

- **Should foreign national PIs be listed as Co-PIs or Service Providers?**

Answer: Foreign institutions cannot be the lead institution on an application, and investigators at foreign institutions cannot serve as the lead PI. Investigators at foreign institutions can participate as Co-PIs. Foreign nationals who are affiliated with an eligible American institution may serve as PIs or co-PIs.

- **Where can I find similar funding opportunities?**

Answer: You can search for funded grants under [research recipients](#) and [research results search pages](#). You can also find links to previous RFAs on our [Past Research Funding Opportunities](#)

[page](#). To be notified of grant opportunities, please sign up for our [listserv](#). You can also search for other funding opportunities at [grants.gov](#).

- **Are there limits to how many projects a faculty member can join?**

Answer: No.

As stated in the RFA, "If you wish to submit applications for more than one STAR funding opportunity you must ensure that the research proposed in each application is significantly different from any other that has been submitted to the EPA or from any other financial assistance you are currently receiving from the EPA or other federal government agency."

- **Is the Key Contacts form used instead of requiring Resume/Bio sketches/CV for the PI and Co-PI's?**

Answer: You must use both. The Key Contact form in [Grants.gov](#) asks for more information than just research personnel. Each resume/bio sketches/CV should not be more than two pages and there is no limit to the number of resumes. Resumes should be added to the project narrative attachment. There is also an Additional Key Contact form which can be added to the project narrative attachment to list investigators other than the PI.

- **Is there a page limit for the research plan?**

Answer: The research plan should not exceed fifteen pages. Appendices may be included but must remain within the 15-page limit.

- **Can the research focus on foreign populations?**

Answer: Research on foreign populations is allowed as long as the results of research under this RFA benefit the U.S. and are applicable/transferrable across the U.S.

- **How will EPA choose awardees?**

Answer: Eligible applicants are evaluated through a two-stage competitive review process. Eligible grant applications are subject to external peer review to evaluate scientific merit. Applications receiving peer review scores of Excellent or Very Good will then undergo an internal relevancy review to evaluate relevance. Final funding decisions are made by the EPA selection official based on the results of the review panels, past-performance history review, and the evaluation of the Scientific Data Management Plan. In addition, in making the final funding decisions, the selection official may also consider program balance and available funds. Please see section V. of the RFA for more information on the application review process.

- **Can you address this issue of "cooperative agreements" versus conventional grants? How will EPA determine when to fund as a cooperative agreement?**

Answer: Applications will be funded as grants. After the award is made, if there is a need from the grantee that EPA can address, and there is capacity and interest within EPA to collaborate, then EPA may consider a request to convert the grant to a cooperative agreement.

- **Is cost sharing required?**

Answer: No, cost sharing is not required.

## Research Projects

- **Given EPA only plans to fund one proposal, what Technology Readiness Level is expected/anticipated for the sensor and destruction technologies proposed?**

Answer: This RFA is seeking nanotechnology that is ready to be validated and demonstrated outside the lab in the relevant environment, equivalent to a Technology Readiness Level (TRL) of 5 to 6. If a proposal has a lower or higher TRL, it may not be rated as high.

- **Should the application include both destruction and monitoring in the proposal?**

Answer: Yes, applications should address both research areas. Research areas include:

- Monitoring: Develop and demonstrate nanosensor technology to **detect and monitor PFAS**
- Destruction: Develop and demonstrate nanosensor technology with **functionalized catalysts to degrade PFAS**. Destruction does not need to use sensor technology but should be nanotechnology-based.

You can still apply if only one research area is addressed, but applications that focus on both research areas may be rated higher than others.

- **Should the destruction technology be nanotechnology? A nanosensor seems small to be relevant to destroy PFAS at an environmentally relevant level, so would for example a packed bed of nanoparticles for catalysis be acceptable if it is not on a sensor platform?**

Answer: Yes, the destruction must be nanotechnology. The destruction of PFAS does not have to be a nanosensor but will have to use nanotechnology. Nanotechnology for the destruction portion may be different than the nanotechnology used for the sensor. A packed bed of nanoparticles would be accepted.

- **If we have a nanosensor for detection, but an enzymatic approach to destruction, is that responsive? So, would a solid supported enzyme meet the standard?**

Answer: Both research areas should have a focus on nanotechnology. The destruction research area should be focused on nanotechnology and use a functionalized catalyst, however, we do not limit the type of functionalized catalyst that is used. We will leave the term “functionalized catalyst” open for interpretation by the applicant. If the solid supported enzyme is considered a “functionalized catalyst,” then it can be used. Please email Sydney Cunniff ([Cunniff.Sydney@epa.gov](mailto:Cunniff.Sydney@epa.gov)) for more information.

- **If we are using a surface modified nanomaterial, should the modification be the same for sensing and degradation, or can it be different?**

Answer: The modification can be different. The sensing and the degradation do not have to have the same nanomaterial.

- **It is starting to sound like there are certain groups already targeted if you are limiting things to nano for destruction. In other words, what is behind the absolute need for everything to be nano?**

Answer: No specific groups or applicants are targeted for this RFA. The focus on nanosensor technology is driven by [congressional direction](#).

## Eligibility

- **Are small businesses or for-profit firms eligible to apply? Are they eligible to receive subawards?**

Answer: No, small businesses are not eligible to apply and may not be a subawardee. Small businesses should consider applying for the [Small Business Innovation Research Program \(SBIR\)](#). If you are interested in doing business with EPA, please read [Resources for Small Businesses](#).

As stated in the RFA: “Profit-making firms and individuals are not eligible to apply. For-profit colleges, universities, trade schools, and hospitals are ineligible. For-profit organizations are not eligible for subawards under this grant program but may receive procurement contracts. Any contracts for services or products funded with EPA financial assistance must be awarded under the competitive procurement procedures of 2 CFR Part 200 and/or 2 CFR Part 1500, as applicable. The regulations at 2 CFR 1500.10 contain limitations on the extent to which EPA funds may be used to compensate individual consultants. Refer to the [Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements](#) for guidance on competitive procurement requirements and consultant compensation. Do not name a procurement contractor (including a consultant) as a “partner” or otherwise in your application unless the contractor has been selected in compliance with competitive procurement requirements.”

- **Can a single state agency or group of agencies apply?**

Answer: State and local government agencies may apply and may serve as subawardee organizations. There is no limit to the number of state and local government agencies that may receive subawards.

As stated in the RFA: “Public and private nonprofit institutions/organizations, public and private institutions of higher education (IHEs), and hospitals located in the U.S. and its territories or possessions; state and local governments; Federally Recognized Indian Tribal Governments; and U.S. territories or possessions are eligible to apply. Profit-making firms and individuals are not eligible to apply.”

- **Can international organizations apply?**

Answer: Foreign entities and universities not located in the U.S. cannot apply for this research grant. However, funding awarded to eligible U.S. institutions through this RFA can be used to support the research of students enrolled in a university outside the U.S. if they are a subawardee listed on the application. Foreign students legally present in the United States and

enrolled in an eligible U.S. institution may be supported by research funds if their university is awarded a grant.

- **Can an EPA employee be part of the application as a co-PI or advisor?**

Answer: No, EPA employees are not allowed to participate in any application. In addition, letters of support or intent from EPA employees are prohibited; however, Federal employees from other agencies may submit letters of support or intent.

- **Can individuals from academia partner with other consultants?**

Answer: A lead institution from academia may propose consultants in their application, but the grant recipient must follow the competitive procurement procedures described in the RFA. Consultants are not to be listed as PIs or co-PIs.

As stated in the RFA: “Any procurement of services from individual consultants or commercial firms (including space for workshops) must comply with the competitive procurement requirements of 2 CFR Part 200.317-200.327. Please see <https://www.epa.gov/grants/epa-solicitation-clauses> for more details. EPA provides detailed guidance on procurement requirements in the Agency’s [Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements.](#)”

- **Can research university employees with federal government affiliation serve as key personnel on a project?**

Answer: No, Federal employees are not allowed to participate as PIs or co-PIs in any application.

As stated in the RFA: “Federal employees are not eligible to serve in a principal leadership role on an assistance agreement. Federal employees may not receive salaries or augment their Agency’s appropriations through awards made under this program unless authorized by law to receive such funding.

The applicant institution may enter into an agreement with a Federal Agency to purchase or utilize unique supplies or services unavailable in the private sector to the extent authorized by law. Examples are purchase of satellite data, chemical reference standards, analyses, or use of instrumentation or other facilities not available elsewhere. A written justification for federal involvement must be included in the application. In addition, an appropriate form of assurance that documents the commitment, such as a letter of intent from the Federal Agency involved, should be included.”

- **Are Federally-Funded Research and Development Centers (FFRDCs) eligible to apply?**

Answer: No, National laboratories funded by Federal Agencies (Federally-Funded Research and Development Centers, “FFRDCs”) may not apply. However, FFRDC employees may cooperate or collaborate with eligible applicants within the limits imposed by applicable legislation and regulations. They may participate in planning, conducting, and analyzing the research directed by the applicant, but may not direct projects on behalf of the applicant organization. An award recipient may provide funds through its assistance agreement from the EPA to an FFRDC for research personnel, supplies, equipment, and other expenses directly related to the research.

- **Can scientists from a National Lab or FFRDCs serve as co-PI or subawardee?**

Answer: FFRDCs would be considered as subawardees. Scientists at FFRDCs may provide input, research advice, personnel, supplies etc., but cannot serve as PIs or co-PIs. For distinctions between subrecipients and contractors see [EPA's Subaward Policy](#).

- **Are salaries for permanent FFRDCs allowed?**

Answer: Yes. Salaries for permanent FFRDC employees may be charged under the assistance agreement.

- **Are non-profit FFRDC-operators (not affiliated with national labs) eligible to apply?**

Answer: Yes, but for more details, email Ron Josephson ([Josephson.Ron@epa.gov](mailto:Josephson.Ron@epa.gov)).

## Peer Review

- **Are there any minimum requirements for a peer reviewer?**

Answer: Peer reviewers should have a depth of experience in at least one of the research areas of the RFA. The panel will be composed of experts with a variety of expertise and cannot be directly or financially involved or have certain other types of conflict of interest with a submitted application. Peer reviewers also cannot be EPA employees. If you are interested in becoming peer reviewer, please contact Julie Winslow ([Winslow.Julie@epa.gov](mailto:Winslow.Julie@epa.gov)).

- **Can we be involved with an application as well as be involved in peer-review?**

Answer: No. Peer reviewers cannot be directly or financially involved with any application for this RFA (you can still be on this peer review panel if involved with an application submitted to another EPA RFA) or have a certain type of conflict of interest with a submitted application, including submitting a letter of support or intent. If someone else from your institution is applying for the grant, and you do not otherwise have a conflict of interest with this application, you can still be a peer reviewer; however, you cannot participate in discussions involving that application.

## SAM.gov/Grants.gov

- **What is SAM.gov?**

Answer: The System for Award Management (SAM.gov) is an official website of the U.S. Government. There is no cost to use SAM.gov. You can use this site to:

- Register to do business with the U.S. Government
- Update, renew, or check the status of your entity registration
- Search for entity registration and exclusion records
- Search for assistance listings (formerly CFDA.gov), wage determinations (formerly WDOL.gov), contract opportunities (formerly FBO.gov), and contract data reports (formerly part of FPDS.gov).

- View and submit BioPreferred and Service Contract Reports
- Access publicly available award data via data extracts and system accounts

All applicant institutions must have SAM.gov registration “Active” prior to submitting applications via Grants.gov. Otherwise, Grants.gov will not accept the application. Not having a SAM.gov registration active is not considered a valid reason to have a late submission to our grant programs.

- **Are SAM.gov registrations required for individual PIs or their institutions?**

Answer: For the purposes of this funding opportunity, applicant institutions are required to be registered in Sam.gov, not individuals. If you have further questions or need assistance with the SAM.gov registration process, please contact the Federal Service Desk ([www.fsd.gov/gsafsd\\_sp](http://www.fsd.gov/gsafsd_sp)) and the phone number at 866-606-8220.

- **If non-governmental organizations are co-PIs, do they need to be registered at SAM.gov?**

Answer: No, organizations of co-PIs do not have to be registered. Only the lead institution submitting the application needs to be registered at SAM.gov.

- **What if I have technical difficulties with submitting my application through Grants.gov?**

Answer: All applications must be submitted through Grants.gov. EPA will make decisions concerning acceptance of each application submitted outside of Grants.gov on a case-by-case basis. EPA will only consider accepting applications that were unable to submit through Grants.gov due to Grants.gov or relevant SAM.gov system issues or for unforeseen exigent circumstances, such as extreme weather interfering with internet access. Failure of an applicant to submit prior to the application submission deadline date because they did not properly or timely register in SAM.gov or Grants.gov is not an acceptable reason to justify acceptance of an application outside of Grants.gov.

If you are experiencing problems resulting in an inability to upload the application to Grants.gov, it is essential to call Grants.gov for assistance at 1-800-518-4726 or [support@grants.gov](mailto:support@grants.gov) before the application deadline. Be sure to obtain a case number from Grants.gov. Report this information to our grants mailbox ([electronic-grant-submissions@epa.gov](mailto:electronic-grant-submissions@epa.gov)) before the close of the funding opportunity.

## Budget

- **What can the budget go towards? How does budget justification work?**

Answer: Grant funds can be used to cover costs for personnel, fringe benefits, travel, equipment, supplies, contractual support, other, and indirect costs. The budget justification should identify the amount requested for each of the above budget category (i.e., categories in Section B of SF-424A) and describe the basis for calculating the total request in each budget category. Please refer the RFA or contact the Technical Contact listed in the RFA for more guidance.

- **How can the budget go towards subawards?**

Answer: Subawards, such as those with other universities or nonprofit research institutions for members of the research team, should be included in the “other” category. The budget justification should provide the total costs proposed for subawards as a separate line item in the budget justification and brief description of the activities to be supported for each subaward or types of subawards if the subrecipients have not been identified. Subawards may not be used to acquire services from consultants or commercial firms.