



NATIONAL SCIENCE FOUNDATION
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NSF 23-159

Dear Colleague Letter: NSF-French National Research Agency (ANR) Quantum Information Science and Engineering Lead Agency Opportunity

September 26, 2023

Dear Colleague:

The U.S. National Science Foundation (NSF) and the French National Research Agency (ANR) have signed a Memorandum of Understanding (MOU) on Research Cooperation. The MOU provides a framework to encourage collaboration between U.S. and French research communities and sets out the principles by which jointly supported activities might be developed. The MOU provides for an international collaboration arrangement whereby U.S. researchers may receive funding from NSF and French researchers may receive funding from ANR. Through a "Lead Agency Opportunity", NSF and ANR will allow proposers from both countries to submit a collaborative proposal that will undergo a single review process at the Lead Agency. NSF will be the Lead Agency between the publication date of this Dear Colleague Letter (DCL) and June 30, 2024. ANR and NSF anticipate that the Lead Agency will alternate annually thereafter.

Proposals will be accepted for collaborative quantum information science and engineering (QISE) research at the intersection of participating NSF programs and relevant themes under ANR's Generic Call for Proposals. The NSF organizations participating in this Lead Agency Opportunity are the Directorates for Biological Sciences (BIO); Computer and Information Science and Engineering (CISE); Engineering (ENG); and Mathematical and Physical Sciences (MPS). Specific participating NSF programs within each Directorate are listed on the NSF Office of International Science and Engineering (OISE) website at <https://www.nsf.gov/od/oise/IntlCollaborations/France.jsp>. French researchers are invited to read the Generic Call for Proposals (AAPG) from ANR (<https://anr.fr/en/call-for-proposals-details/call/generic-call-for-proposals-aapg-2024/>). Proposals are expected to adhere to the research areas, funding limits, and grant durations for these participating NSF programs and for the ANR funding instruments from which funding is sought. **As details vary by NSF program, U.S. Principal Investigators (PI) are encouraged to contact program directors**

of pertinent NSF programs for specific guidance.

Division-specific considerations:

- Proposals submitted to the Division of Computing and Communication Foundations (CCF) in CISE under this opportunity should be limited to the "Small" category (maximum budget for the U.S. side: \$600k; maximum duration: 36 months).
- The Division of Molecular and Cellular Biology (MCB) in BIO is particularly interested in proposals to investigate quantum effects in biological systems.
- The Division of Mathematical Sciences (DMS) in MPS and CCF welcome proposals on the mathematical foundations of quantum computing and the development of new quantum algorithms.

Proposals must represent an integrated collaborative effort between the U.S. and French researchers and be submitted to NSF by an eligible U.S. organization. Eligibility restrictions and other program specific requirements for U.S. proposers, if applicable, can be found in the relevant funding opportunity for each participating program.

Proposers are advised that all documents submitted to NSF or ANR may be shared with the other agency to implement the Lead Agency Opportunity.

The collaborative opportunity described in this DCL remains in effect until archived.

PROPOSAL PREPARATION AND SUBMISSION

U.S. proposers must submit an Expression of Interest (EOI) to NSF in advance of the full proposal submission. NSF will share submitted EOIs with ANR for their awareness. EOIs will be used to determine eligibility for the Lead Agency Opportunity.

Proposers with approved EOIs will be invited to submit a full proposal to NSF, with a separate copy submitted by the French applicants to ANR no later than December 18, 2023. ANR will check that the French investigators have an active and appropriate role and confirm their eligibility. Proposers are advised that a delay in submitting the full proposal to ANR may result in delays to the NSF review process.

NSF will review proposals in competition with other proposals received for the same funding round of the program to which the proposal is submitted, using NSF's merit review process. ANR will not conduct a parallel review and will not rank proposals. If a proposal is recommended for funding, the U.S. project part will be supported by NSF and the French project part will be supported by the ANR.

There are no separate NSF funds available for this effort; proposals will compete with all other proposals submitted to participating programs and will be evaluated on the strengths of the proposed intellectual merit, broader impacts, and any solicitation-specific review criteria

that may apply.

DUE DATES

There is only one round of proposal submissions related to this DCL with NSF as the Lead Agency. Proposals submitted to an NSF program that accepts proposals at any time should be submitted by December 15, 2023. Proposals submitted to any other participating NSF program should be submitted following the program due dates for calendar year 2023.

GUIDELINES

Expression of Interest

For full proposals to be considered, the project team should submit an Expression of Interest following the instructions at <https://www.nsf.gov/od/oise/IntlCollaborations/France.jsp> at least 45 calendar days in advance of the submission of the full proposal to NSF.

Use the Expression of Interest form found here:

<https://www.nsf.gov/od/oise/IntlCollaborations/France.jsp>.

The EOI submission includes the following information:

- Proposed Project Title.
- Proposed Project Duration
- Names, email addresses, and institutional affiliations of the researchers in the United States and in France.
- Bottom-line estimates of total funding (including indirect costs) to be requested from NSF and ANR.
- Estimated number of postdocs (U.S.), estimated number of students supported (U.S.), and estimated number of salary months requested (U.S.).
- Clear indication of the NSF target program. This may not be the only NSF program that will consider the Expression of Interest, but identification of the target program allows for faster consideration.
- Summary of the proposed research outlining specific objectives and main research challenges (1,000-word limit). The U.S. portion of the work should fall within the scope of one or more participating programs as noted above. The French portion of the work should fall within the relevant themes in the Generic Call for Proposals. The project summary must include a description of the role(s) of the French collaborator(s).

NSF intends to communicate its decision about the eligibility of the EOI to the U.S. PIs no later than 30 calendar days before proposals are due. If the EOI has not been approved by NSF prior to submission of a full proposal, the proposal may not be considered for evaluation (i.e., may be returned without review).

Full Proposals

1. Eligibility to submit proposals is subject to each agency's respective eligibility requirements and policies, as spelled out in the [NSF Proposal and Award Policies and Procedures Guide \(PAPPG\)](#) and/or the NSF solicitation to which a proposal will be submitted, and ANR's regulations and guidelines.
2. Proposers must comply with the proposal preparation requirements outlined in NSF's PAPPG and submit the proposal to the most appropriate NSF program through Research.gov (<https://www.research.gov/research-web/>) or Grants.gov (<https://www.grants.gov/>). Proposers should follow all requirements outlined in this DCL as well as the specific funding opportunity to which the proposal is submitted. **The French institution must submit a proposal with the identical Project Description**, with any required additional information to ANR, via the ANR submission system, the link will be available at <https://anr.fr/en/call-for-proposals-details/call/generic-call-for-proposals-aapg-2024/>.
3. By submitting, PIs and their organizations agree that NSF may share proposals, unattributed reviews and information pertaining to the review process with ANR.
4. The proposed project duration should follow the guidelines for the applicable program and be 48 months or less. The project duration should be the same on the French and U.S. sides of the project.
5. The proposal should describe the full proposed research program, including the total U.S. and French resources that will be part of the project. The Project Summary and Project Description must include a description of the collaboration, including an explanation of the role(s) of the French collaborator(s) and an explanation of how the team will work together.
6. The proposal must describe the intellectual merit of the proposed research, including the value of the international collaboration, and the anticipated broader impacts of the effort. As broader impacts are a review requirement for both NSF and ANR, the proposal should include the relevant societal benefits.
7. The proposal should describe the full proposed research program, including the total U.S. and French resources that will be part of the project. NSF proposers should indicate only the U.S. expenses on the NSF budget form. ANR proposers should indicate only the French research expenses on the ANR budget form. The French budget and budget justification must be included in the NSF proposal as a supplementary document. The Budget Justification section of the NSF proposal should clearly differentiate the U.S. budget from any similar funds requested by the French team and justify the full U.S. project budget. Proposals that request duplicative funding may be returned without review. The U.S. budget should not vary from that specified in the EOI by more than 10%. If a budget change beyond 10% is requested, it should be justified, and the PI should get permission in writing from NSF to submit a proposal with the new budget.

8. The title of the proposal should be prefixed with "NSF-ANR QISE:" after any program specific title requirements.
9. For proposals submitted to NSF, French personnel should be listed in the Overview section of the Project Summary as "non-NSF funded collaborators." This listing is for administrative purposes and is not intended to characterize the level or value of the contribution of French personnel to the project. Guidance on information to provide for "non-NSF funded collaborators" is below.
 - Biographical Sketch - Required. The biographical information must be clearly identified as "non-NSF funded collaborators" biographical information and uploaded as a single PDF file in the Other Supplementary Documents section of the proposal. Use of a specific format is not required except in specific cases when the individual announcement to the community for the participating programs will indicate a required NSF format.
 - Current and Pending Support - Not required.
 - Results from Prior NSF Support - Not required.
 - Collaborators and Other Affiliations (COA) Information - Optional but requested. The COA information should be provided through the use of the COA template, identified as "non-NSF funded collaborators" information, and uploaded as a PDF file in the Single Copy Documents section of the proposal. In some specific cases, the individual announcement to the community for the participating programs will indicate that the COA information will be required for French personnel, rather than just optional.
10. A post-doctoral mentoring plan is not needed if funding for postdocs is requested only from ANR. Including one, however, is allowed.
11. For projects involving human subjects/participants or animals, proposers should follow both NSF and ANR policies, submitting documentation to each as appropriate. Proposers must have requisite institutional approvals or exemptions in place prior to any potential award.

ADDITIONAL DOCUMENTS

Proposers should provide all the documentation outlined in this DCL as well as the documents required by the specific funding opportunity to which the proposal is submitted. Unless stated otherwise in the funding opportunity, letters of collaboration may be included.

MERIT REVIEW

Proposals will be reviewed alongside all other proposals submitted to participating programs and will not undergo a special or separate review process. Proposals will be evaluated in accordance with the [NSF's merit review criteria](#).

FUNDING DECISIONS

NSF, as the lead agency, will use its usual internal procedures to determine whether a proposal will be awarded or declined. All potential award decisions will be discussed with the ANR.

NSF will advise all proposers whether the proposal has been recommended for funding or will be declined. Proposers will receive copies of the reviewers' unattributed comments and, where applicable, a panel summary.

NSF and ANR will coordinate timing of awards as much as possible. Because of potential differences in funding cycles, it is possible that some projects will have delayed start dates to allow time for funds to become available and/or all pre-award requirements to be met. Wherever possible, NSF and ANR will endeavor to hold to standard turnaround times for each participating agency, but in exceptional circumstances outcomes could be delayed.

The number of U.S.-French projects selected for funding and the total amount to be allocated will depend on the number and quality of the submitted projects and the available funding for each funding agency.

POST-AWARD CONSIDERATIONS

Recipients will be expected to comply with the award conditions and reporting requirements of the agencies from which they receive funding.

Recipients are expected to acknowledge both NSF and ANR in any reports or publications resulting from the award.

NSF and ANR will discuss requests for changes in awards (for example, changes in objectives or scope) before a joint decision is made.

NSF will consider requests for no-cost extensions for U.S. PIs using standard procedures.

Resubmission of EOIs that do not align with this opportunity or declined full proposals should follow guidance from the program that reviewed the original EOI or full proposal.

In accordance with NSF and ANR standard procedures, awards will be publicly announced.

DATA PROTECTION CONSIDERATIONS

NSF and ANR will share relevant information and data whether in connection with the proposal and award process, or thereafter during the post award process. Data are expected to be shared between NSF and ANR to enable the secure and efficient processing of full proposals for this Lead Agency Opportunity. Data shared may include Expressions of Interest submitted to NSF, full proposals including proposal attachments, unattributed peer reviews, and unattributed panel summaries. Data are to be shared via a secure means of transfer.

NSF and ANR are committed to maintaining data confidentiality, protection, and privacy and intend to fully abide by their own applicable laws and policies concerning the sharing of data in collaborative activities.

Questions about this DCL may be directed to anrqise-collaboration@nsf.gov. Additionally, OISE helps to coordinate the overall engagement between NSF and ANR. The current OISE program manager for the France is listed at <https://www.nsf.gov/od/oise/country-list.jsp>.

Sincerely,

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