

NSF 24-129

Dear Colleague Letter: NSF ANR Chemistry Lead Agency Opportunity on Sustainable Chemistry: Catalysis with Earth-Abundant Elements

September 12, 2024

Dear Colleagues:

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 for the current fiscal year. ANR and NSF anticipate that the Lead Agency will alternate annually thereafter.

Proposals relevant to the following area and agency programs are eligible for submission under this lead agency opportunity in FY 2025.

Sustainable Chemistry: Catalysis with Earth-Abundant Elements

Among current sustainability challenges, the development of more sustainable catalysts or catalytic processes needs to be addressed to unlock the potential of many innovations. In this context, ANR and NSF aim to strengthen the research on catalysis with earth abundant elements by fostering collaborations and synergies between research teams in France and in the US. To this end, the scope of this call for proposals is **fundamental research in homogeneous catalysis with Earth-abundant elements**. It will include organometallic catalysis, organocatalysis, and photocatalysis. The focus of the proposals should be on advances related to the development of new catalysts and catalytic strategies and associated mechanistic and computational studies.

Electrocatalytic reactions are out of scope and excluded from this call.

Sample Research topics (but not limited to):

- Preparation and activity assessment of new catalysts
- Mechanistic studies including the identification of intermediates using advanced spectroscopic techniques.
- Computational modeling and data science related to catalyst development.

Proposers must provide a clear rationale for the need for a U.S.-France collaboration, including the unique expertise and synergy that the collaborating groups will bring to the project. Proposers should note that the lead agency opportunity does not represent a new source of funding. Proposals will be assessed in competition with all others submitted to the collaborating divisions, and outcomes will be subject to both success in merit review and the availability of funds from the Division of Chemistry at NSF and ANR.

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. 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 ANR's regulations and guidelines.

DUE DATES

Proposers with approved EOIs will be invited to submit a full proposal to NSF by **June 2**, **2025**, with a separate copy submitted by the French applicants to ANR no later than June 3, 2025. Proposals must be submitted to both agencies (NSF and ANR) by the due dates. Those submitted to only one agency will be rejected. French coordinator/partners are subject to the rules (in particular of eligibility) to which all national scientific coordinators/partners of the 2025 Generic call for proposals must comply.

GUIDELINES

Expression of Interest

For full proposals to be considered, the project team must submit an Expression of Interest at least 90 calendar days in advance of the submission of the full proposal to NSF, **using the Expression of Interest form found here**:

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

The EOI submission must include 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.
- 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 the research supported by the Chemistry division. 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 60 calendar days before full proposals are due. If the EOI has not been approved by NSF prior to submission of a full proposal, the proposal will not be considered for evaluation (i.e., will be returned without review).

Full Proposals

- Proposers must comply with the proposal preparation requirements outlined in NSF's PAPPG and submit the proposal by electing the PAPPG as the funding opportunity and directing the proposal to PROJECTs, fund code 197800 in the Division of Chemistry through Research.gov (https://www.research.gov/research-web/) or Grants.gov (https://www.grants.gov/) by June 2, 2025.
- 2. Proposers should follow all requirements outlined in this DCL and NSF PAPPG. **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-2025/.
- 3. NSF may share proposals, unattributed reviews and information pertaining to the review process with ANR. The proposed project duration should be 48 months or less. **The project duration should be the same on the French and U.S. sides of the project**.
- 4. The 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.
- 5. 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.
- 6. NSF proposers should indicate only the U.S. expenses on the NSF budget form. ANR

proposers should indicate the French research expenses and U.S. 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.

- 7. The title of the proposal should be prefixed with "NSF-ANR CHE:"
- 8. 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 the NSF format is required.
- Synergistic Activities Required
- Current and Pending (Other) Support Not required
- Results from Prior NSF Support Not required
- Collaborators and Other Affiliations (COA) Information Required. The COA information should be provided through the use of the COA template, identified as "non-NSF funded collaborators" COA information, and uploaded as a PDF file in the Single Copy Documents section of the proposal

MERIT REVIEW AND FUNDING DECISIONS

NSF will review proposals in competition with other proposals submitted to the Division of Chemistry, 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

NSF, as the lead agency, will use its usual internal procedures to determine whether a proposal will be recommended for an award or declined. All potential award recommendations will be discussed with the ANR, before reaching final decisions.

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. Insofar as possible, the French and foreign partners' projects must start and finish on the same dates. Wherever possible, NSF and ANR will endeavor to hold 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.

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 nsfanr@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,

David B. Berkowitz Assistant Director Mathematical and Physical Sciences Kendra Sharp Office Head Office of International Science and Engineering