



NATIONAL SCIENCE FOUNDATION
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NSF 23-157

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

September 26, 2023

Dear Colleague:

The U.S. National Science Foundation (NSF) and the French Agence Nationale de la Recherche (ANR) have signed a Memorandum of Understanding (MOU) on Research Cooperation. The MOU provides an overarching 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 is a lead agency opportunity whereby collaborative proposals between U.S. and French researchers are submitted to only the lead agency for review, and the partner agency accepts that review. Based on the lead agency review of collaborative proposals, NSF and ANR will jointly fund meritorious collaborative projects. The lead agency opportunity allows for reciprocal acceptance of merit review through unsolicited mechanisms with the goal of reducing some of the current barriers to international collaborations.

The NSF Division of Chemistry in the Directorate for Mathematical and Physical Sciences (NSF/MPS/CHE) and ANR are pleased to announce topical areas associated with the lead agency opportunity. In FY 2024 (October 2023-September 2024), ANR will serve as the lead agency for all proposals. It is expected that NSF and ANR will alternate as lead agency in subsequent years.

The lead agency opportunity allows U.S. and French researchers to submit a single proposal describing a project involving U.S. and French researchers that will undergo a single review process by the lead agency, on behalf of NSF/MPS/CHE and ANR.

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

areas and agency programs identified in this Dear Colleague Letter, and outcomes will be subject to both success in merit review and the availability of funds from NSF/MPS/CHE and ANR.

Proposals relevant to the following area and agency programs are eligible for submission under this lead agency opportunity in FY 2024.

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, mechanistic studies, and characterization methods.

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

Sample Research topics:

- Design, synthesis, and study of new organometallic catalysts using earth abundant metals, organocatalytic systems, and photocatalytic systems.
- Development of new reaction methods and processes including catalyst recycling and new routes to valorize waste materials.
- Mechanistic studies of catalytic processes including characterization of intermediates, particularly with advanced spectroscopic techniques.
- Proposals that include elements of computational modeling or the development or deployment of new analytical methods by at least one of the collaborating partners are encouraged.

PROPOSAL PREPARATION AND SUBMISSION

In FY 2024, proposals in response to this lead agency agreement should be submitted to ANR as part of their Generic call for proposals (Appel à Projets Générique 2023 (AAPG 2023, <https://anr.fr/en/call-for-proposals-details/call/generic-call-for-proposals-aapg-2024/>)).

Proposers should submit one proposal only to ANR. ANR will share proposals and review information with NSF. Information about this NSF ANR Chemistry lead agency agreement is also listed on the NSF Office of International Science and Engineering (OISE) website at <https://www.nsf.gov/od/oise/IntlCollaborations/France.jsp>.

The due date for the submission of a registration file (dossier) is October 19, 2023 (5 p.m. Paris time). Invitations to submit a full proposal are expected in mid-February, 2024. Full proposals will be evaluated only via the second stage of the ANR AAPG review process. The expected submission deadline for full proposals is by the end of March, 2024. Further information about due dates for full proposal submission will be communicated to applicants in the invitation to submit full proposals. Only applicants who have submitted a qualified registration file (dossier) will be invited for full proposal submission.

Special instructions associated with submission of NSF ANR Chemistry proposals:

1. At the time of submission of the registration file (dossier) to ANR, US investigators should submit a copy of the dossier to NSF via the email address nsfanr@nsf.gov. Included in the email should be a synopsis of the proposal, names of US and French investigators, and an estimated bottom (direct plus indirect costs) line budget for both the U.S. and French portions of the project, with the US budget in dollars and the French budget in euros. This document should not exceed two pages.
2. CVs for the U.S. PIs must be included in the full proposal submission to ANR.
3. Proposals that are inappropriate for funding by NSF or ANR or are not responsive to this funding opportunity will not be invited for full submission or be returned without review. Materials- or engineering-focused projects are more appropriate for programs in the NSF Division of Materials Research or Engineering Directorate.
4. The US investigators must be eligible to submit proposals to NSF under the general guidelines contained in the [NSF Proposal & Award Policies & Procedures Guide](#) (PAPPG). If recommended for funding, the US investigators will be asked to submit a duplicate proposal to NSF in the required NSF format specified in the PAPPG. Further guidance will be provided to successful proposers at this stage.

MERIT REVIEW & AWARDS

Merit Review

1. Proposals will be reviewed in competition with other unsolicited proposals or with proposals received in response to a specific call by the lead funding agency.
2. Proposals will be reviewed in accordance with the lead agency's review criteria, in this case ANR's generic call for proposals. While not identical, the NSF/CHE and ANR ask reviewers to evaluate the proposed project on both its scientific or intellectual merit as well as its broader or societal impacts. A description of the NSF merit review process is provided on the [NSF merit review website](#). A description of the ANR assessment process is provided in the Generic Call for proposals text and its Guide, as well as in the annex dedicated to the NSF ANR Chemistry collaboration.

Funding Decision

1. After the reviews are received, the lead agency will use its usual internal procedures to determine whether a proposal will be awarded or declined.
2. Proposers in both countries will be advised whether their proposal has been recommended for funding or will be declined by the lead agency. Proposers will receive copies of the unattributed reviewers' comments and, where applicable, a panel summary.
3. Once a proposer has been notified of a pending award, the non-lead researcher(s) associated with the project must submit a copy of the proposal to the non-lead agency so that each agency has complete documentation of the overall proposed research project. Further guidance will be provided to successful proposers at this stage.
4. If a proposal is recommended for funding, the U.S. organization(s) will be supported by NSF/MPS/CHE, and the French organization(s) will be supported by ANR. NSF/MPS/CHE and ANR staff will review budgets to ensure that there are no overlaps or duplications in funding. Overlaps or duplications may lead to reduced funding or no award at all.
5. Because the participating agencies have different funding cycles, it is possible that some projects will have delayed start dates in order to wait until funds become available.

Award Conditions and Reporting Requirements

1. NSF and ANR will clearly state in award notices and any related documents that awards resulting from this activity were made possible by funding from this NSF ANR Chemistry Lead Agency activity.
2. Awardees will be expected to comply with the award conditions and reporting requirements of the agencies from which they receive funding.
3. Researchers will be required to acknowledge both NSF and ANR in any reports or publications arising from the grant.
4. Requests for extensions will be considered by the funding agency using standard procedures. Requests for changes to awards will be discussed with other involved funding agencies before a mutual decision is reached.

Timelines

- October 19, 2023: Deadline for the registration file (dossier) with ANR
- Mid-February, 2024: Invitations to submit full proposals
- End of March, 2024: Deadline for the full proposal submissions to ANR
- May-July 2024: Merit review
- September-December 2024: ANR/NSF decision and publication of results

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