NSF Chemistry Office Hour

Today's Topic:
RARE – Re-entry to Active Research Program – described in 20-586

Date: Feb. 5, 2021

Presenters: Michelle Bushey and Carole Read
CHE Program Director, CBET Program Director

Please mute your microphone.
Submit questions through the Zoom Q&A feature.
RARE – Re-entry to Active Research Program – described in 20-586

• Divisions of Chemical, Bioengineering, Environmental and Transport Systems (CBET) and Chemistry (CHE).

• The primary objective of the RARE program –
  - to re-engage highly meritorious, previously research active individuals who have experienced a decrease in active research productivity after a hiatus
  - to catalyze their promotion or advancement on the academic tenure-track. By providing re-entry points to active academic research
  - the RARE program will reinvest in the nation’s most highly trained scientists and engineers, while broadening participation and increasing diversity of experience.
Two Tracks

The RARE investigator will have a hiatus in active research, due to a non-traditional career path, a significant personal/family event leading to time away from research, a non-research based appointment, or a lack of funding related to external factors.

• Track 1, similar to a typical proposal – no deadline.
• Track 2, retraining - no deadline

- Track 2 of the RARE program will provide retraining grants, and target investigators for which a new research technique is required to conduct transformative research in their field such that they may competitively pursue future federal funding opportunities.
- Track 2 awards provide the investigator with funds to obtain training on a new technique, typically through seed funding, an apprenticeship, or other training.
Steps in the process – who is eligible

Does my research fit within a participating program (CHE and CBET)? (Determined in consultation with a Program Director in the receiving program.)

Does my career history clear make me eligible for RARE? (Determined in consultation with a RARE Program Director and a Program Director in the receiving program.)

Am I tenured, tenure track, affiliated, adjunct, teaching (with a plan to seek a tenure track appointment), employed by an IHE (institute of higher education)?
Or if not IHE employed, do I have mentor at an eligible institution and obtaining a tenured or tenure track position is a goal? (special case)

Am I eligible for a CAREER submission? If yes, you are NOT eligible for RARE. CAREER: NSF 20-525

Have I previously received a Track I RARE? If yes, you are NOT eligible.
Does my research fit?

Make use of “Search Awards” capability to locate abstracts of proposals with comparable objectives/key words to your work

- https://www.nsf.gov/awardsearch/advancedSearch.jsp

Carefully read the most likely program synopsis. Reverse search the “what has been funded” or “for recent awards made by this program” link at the bottom of each program page
Found a possible program? Draft a 1-2 page white paper that you think fits with the program synopsis – email to Program Director, request feedback

A brief synopsis of the work (~1 paragraph)
Your approach, including specific aims and methods to address each aim.
What is the expected outcome of each aim?
What are the novel concepts and what are the advantages of your approach over the existing state-of-the-art?
What new fundamental scientific and engineering knowledge will be gained?

At this point the Program Director does not need info about your broader impacts. They are trying to determine if your research plan is relevant to their program and give you feedback about the competitiveness of the idea.

If you get a green light on the fit to program, we also discuss your eligibility for the RARE mechanism.
Do I meet the RARE metrics?

• A RARE investigator must demonstrate a substantial decrease in research metrics that result from the research hiatus to receive confirmation of eligibility.

• Send an email to a RARE Program Director (see the 20-586) and possibly copy the receiving Program Director.

• Describe your circumstances in an email (you are NOT asked to divulge personal details) and how you believe that to be reflected on your CV in terms of the RARE metrics.

• Send the RARE PD your CV formatted indicating the research activity before and after hiatus along with what CBET or CHE program your research aligns to.

• If the Program Director(s) agree you are eligible, they will send an email stating so. You then have one year to submit your proposal.
The objective of RARE is to catalyze the advancement along the academic tenure-track of highly meritorious individuals who are returning from a hiatus from active research

Research metrics before and after the hiatus should be clearly indicated in a full curriculum vitae that is uploaded as a single copy document if eligibility is approved.

A Track 1 investigator must demonstrate a decrease in one or more metrics. A Track 2 investigator must demonstrate a lack of activity in all three metrics in the new area of interest (publications and funding in other areas are allowed). Applicable research metrics include:

- Research publication activity;
- External research support as PI or co-PI, at a funding level that is consistent with a typical CBET or CHE individual investigator award;
- Resources with which to collect preliminary data.
RARE Eligibility Determination-CV notes-cont.

• Examples of acceptable documentation of these metrics for the CV include:
  • a full curriculum vitae with all publications and funding activity,
  • a budget balance sheet showing funds from current awards are fully committed,
  • a lack of support for research staff,
  • reviews from a proposal saying preliminary data is needed,
  • declined seed grant proposal from home institution,
  • a lack of access to a necessary collaborator.

• Other metrics and means for documentation of the metric may be considered, after consultation with a RARE program director.

• The curriculum vitae should be formatted such that a decline in the research metrics is clearly indicated, for example, by separating entries into pre- and post-stagnation periods.
Eligibility approved: Submitting a RARE proposal

• Approval email from receiving program director begins 1 year clock

• Titles begin either
  Rare Track 1: Your title here  or  Rare Track 2: Your title here.

• When submitting your proposal, Upload the following as Single Copy Documents (these are not seen by reviewers):
  • a full CV clearly outlining the drop in metrics ~ annotated (as described previously)
  • the eligibility approval email from the Program Director inviting your submission
  • a 1-2 page statement addressing short term (2-5 year) career goals and a plan for advancement

• Proposals still follow PAPPG rules (e.g. 2 pg biosketch)
Stay tuned for up coming CHE office hours…


• Friday, Mar. 5, 2021. A Listening session on Broadening Participation, Diversity, Inclusion, and Equity in Chemistry.

With guest hosts:

Miguel Garcia-Garibay (UCLA)
Rigoberto Hernandez (Johns Hopkins)
Kayunta Johnson-Winters (UT Arlington)

Register here:

https://nsf.zoomgov.com/meeting/register/vJIsd-2urDggGadHnmAsAs9W17CmfRo-45o
Questions?