Office of Emerging Frontiers and Multidisciplinary Activities (EFMA)

Research Experience & Mentoring (REM)

Informational Webinar

September 29th, 2023

RESEARCH EXPERIENCE & MENTORING (REM) PROGRAM INFORMATIONAL WEBINAR

A supplemental funding opportunity
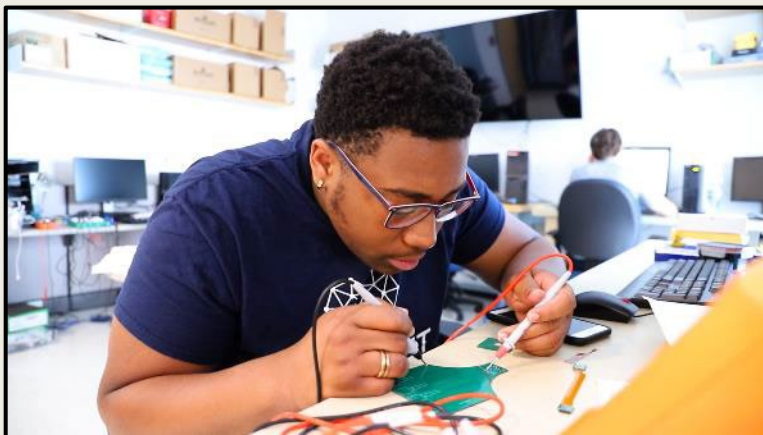for grantees with active EFRI, ERC, or IUCRC Awards

Photo credit: Boston Photonics Center

General Housekeeping

- The webinar is being recorded and will be posted on the REM webpage for future reference

- All webinar participants can use the ZOOM Q&A to submit questions

- If your specific question submitted to the Q&A is not answered or you have additional questions after the webinar, please email Alias Smith at alismith@nsf.gov

Welcome & Introductions

Sohi Rastegar
Head, EFMA Office
Senior Advisor, ENG

Alias J. Smith
REM Program Manager
Program Director, EFMA

Kay-Marie Lamar
AAAS Science & Technology Policy Fellow
EFMA

Prakash Balan
REM Program Coordinator
Program Director, EEC

Crystal Leach
REM Program Coordinator
Program Director, EEC

Dana Denick
REM Program Coordinator
Program Director, EEC

EMERGING FRONTIERS IN RESEARCH AND INNOVATION

Industry-University Cooperative Research Centers Program (IUCRC)

Engineering Research Centers
LINKING DISCOVERY TO INNOVATION

Purpose of this Webinar

- Provide an overview of the Research Experience and Mentoring (REM) Program

- Inform EFRI, ERC, and IUCRC research teams with active awards about the REM Dear Colleague Letter (NSF 23-012)

- Highlight useful resources and best practices for developing a successful REM site

- Respond to questions from potential applicants

Photo Credit: Maeve Drummond Oaks, Purdue University

Photo Credit Arkadii Krokhin, University of North Texas

REM Supplements

- REM is a supplementary funding opportunity for active EFRI, ERC, and IUCRC awards

- Motivation: Authentic research experiences + structured mentoring are known to translate to increased Engagement, Confidence, Retention, and Persistence in STEM

- Opportunity: Up to $110K in supplemental funding for one year (summer & academic year) for <u>six</u> or more Research Participants (RPs)

REM funding aims to <u>both</u>:

1. Enhance current EFRI/ERC/IUCRC projects with new ideas and talents

2. Provide meaningful STEM-related mentored research experiences to research participants who might not otherwise have this type of opportunity

Photo Credit: University of Arkansas Separations REM

Photo Credit: University of Illinois

What activities does the REM supplement cover?

- 6 - 10 week paid summer research experiences for 6+ Research Participants (RPs)

- Technical and lab training sessions for the RPs (to prepare them for their summer research experience)

- Mentorship training for researchers and affiliated graduate students or postdocs

- Structured mentoring for the RPs during the summer and throughout the academic year

- Professional development activities for the RPs during the summer and throughout the year (Participation of RPs in research team meetings and topic-related conferences or workshops, guidance for RPs in co-authoring publications and/or posters)

- Participation in the annual ERN Conference and/or REM grantees meeting in Washington, DC

Who can be a Research Participant (RP)?

PIs may select participants at various stages of STEM development, keeping in mind that broadening participation is a goal of the program.

The RPs selected should be individuals who might not otherwise become engaged in a research project: High School Students and/or Teachers, High School and Middle School Counsellors, Undergraduates (with a focus on individuals without research experience), Community-college Students and/or Professors, and Veterans.

Photo Credit: Alias Smith, NSF

Applying for REM Funding

- Supplement shall be submitted by the lead PI/Institution's Sponsored Projects Office. *Information about requesting supplemental support is contained in the NSF Proposal and Award Policies and Procedures Guide (PAPPG)*

- In addition to the PAPPG requirements for supplemental support requests, the following materials must be submitted when applying for REM supplemental funding:
  - Project Summary
  - Participant Research Plan
  - Recruitment Plan - *Use of NSF Education & Training Application (ETAP) encouraged*
  - Research Participant Mentoring Plan
  - Evaluation Component

- Budget: Maximum annual amount which may be requested is $110,000 (including indirect costs). No tuition funding is permitted.

- Maximum length of project description: 15 pages

Please read the REM DCL (NSF 23-012) for full details

NSF ETAP
EDUCATION & TRAINING APPLICATION

ETAP is a free and customizable common application system available to recipients of NSF awards that provides education and training opportunities to students and professionals such as scholarships, fellowships, internships, and research experiences.

- **Streamlined Data Collection and Reporting**
- **User Support FAQs, Tutorial Videos, and Help Desk**
- **National Applicant Pool for your Opportunities**
- **Mobile Friendly**
- **Meets Federal Accessibility Standards**

Visit Us : https://etap.nsf.gov

Contact the NSF ETAP Help Desk: 1-800-232-8024 • help@nsfetap.org

The OMB control number for this collection is 3145-0248

- **STEP 1:** Create an NSF PI ETAP account

- **STEP 2:** Set up your Opportunity listing, application, and publish your Opportunity

- **STEP 3:** Review applications

- **STEP 4:** Report participation and close out your opportunity

REM Proposal Evaluation

- Award decisions will be based on internal review and/or review by a panel of external experts from academia and industry

- NSB-Approved Merit Review Criteria:
  - *Intellectual Merit* – nature of the research experiences, technical activities
  - *Broader Impacts* – involvement of the RPs, outreach activities, mentoring/professional development activities

Some suggestions:

Recruitment: Establish collaborations or partnerships with local, site-specific centers or schools:

Photo Credit: Alias Smith, NSF

- *K-12 schools*
- *Minority-Serving Colleges and Universities*
- *Community colleges*
- *Established programs at your institution*
- *Outreach offices at your institution*
- *Community centers, YMCA, etc.*
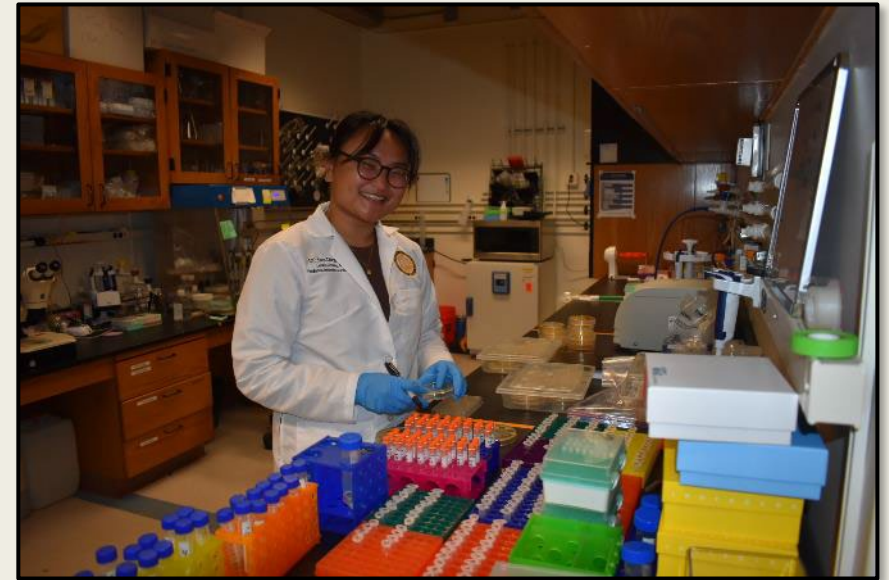- *Student & Professional Associations*

Mentoring: REM supplement recipients are required to provide formal mentorship training for those individuals responsible for training RPs. REM funds can be used for these training sessions. Examples:

- *Mentoring Catalyst Program – mentoringcatalyst.org*
  Provides mentor training to REM mentors
- *Home Institution Mentorship Training*

Mentoring Catalyst Initiative 2.0: Collaborative Research Training
Graduate Students, Post Docs, Undergraduates, Faculty

PIs

· **Ashley Brown, Ph.D., North Carolina State University and University of North Carolina**

· **Andrew Greenberg, Ph.D., University of Wisconsin-Madison**

CO-PI

· **Cheri Barta, Ph.D., University of Wisconsin-Madison**

· **NSF Award #s:** 2040078, 2040103

EMERGING FRONTIERS IN RESEARCH AND INNOVATION (EFRI)

REM MENTORING PROJECT

The **REM Mentoring Catalyst 2.0** initiative is designed to build a REM mentoring community comprised of current and future science and engineering mentors. The overarching mission is to *catalyze a programmatic change* that positively impacts the mentors and the student/teacher mentees in view of the importance of faculty mentoring.

The Catalyst Program has three main goals:
- Provide *meaningful and effective* training of REM faculty, graduate students, and post-doctoral mentors to impact the overall research experiences of their mentees.
- Build an *online community and web portal* for REM mentors to share ideas and provide support for real-time mentoring issues.
- *Strengthen mentoring relationships* between faculty mentors and their graduate and post-doctoral mentees.

. **NSF Award #s:** 2040078**,** 2040103

Support for REM Applicants and Active REM Programs

One of the main goals of the Mentoring Catalyst Program is to help provide support for REM program applicants and active programs:

- Promoting the importance of Mentor Training

- Empowering EFRIs, ERCs, and IUCRCs to develop mentoring best practices

- Catalyzing and strengthening the REM community

Important Dates & Information

- REM proposal deadline: November 6th, 2023
  - Proposals will be accepted between August and the first Monday of November of the operative Fiscal Year
  - *FY24 Decisions Expected: Beginning of January 2024*

- 23 REM Supplements awarded in FY23

- Each award is limited to $110,000 and one-year duration

- REM Grantees Meeting and/or Emerging Researchers National (ERN) Conference - Held in February or March of each year

Differences between REM and REU/RET supplements

– *REM supplements allow a broader range of participants*

– *Combinations of people at different STEM developmental stages are allowed/encouraged*

– *The REM program requires structured mentoring*

– *Final presentations are expected from REM RPs*

– *REM sites offer year-long structured mentoring and professional development activities*

– *Evaluation of success in broadening participation and success in inspiring STEM engagement is required*

EFRI, ERC, and IUCRC projects in their final year are eligible to apply

- Award of a REM supplement will extend the parent award for one year.

- This allows you to participate in REM, enhance your research, and open your lab to those who could benefit from the experience.

REM sites can support Research Participants at co-PI labs

– Broadening participation is a major goal of the REM program.

– You may recruit any US citizen/permanent resident.

– Plan for all RPs to participate in team-building exercises throughout the year.

The target cohort size is 6 Research Participants

– Several current and past grantees have managed to support more than 6 RPs.

– We will examine the budget justification and the merits of your proposed plans and may still look favorably on an exciting, creative proposal with fewer research participants.

– <u>Robust justification must be given for proposals with less than 6 research participants</u>.

REM can support graduate students as mentors

– Graduate students may serve as mentors to the RPs and assist in lab/technical/professional training activities

– Graduate students can attend the REM grantees meeting

– However, if they are already being funded by the parent EFRI/ERC/IUCRC award, then additional REM funding cannot be requested for these individuals.

EFRI, ERC, and IUCRC may submit a REM supplement application in concurrent years

– PIs will need to submit a new proposal each year and compete for funding.

– We encourage current and past REM awardees to submit proposals each year that they are eligible.

Funds from non-EFRI, ERC, or IUCRC awards can be used to support RPs and REM activities

- It is the PI's responsibility to make sure funding actions are not a violation of the terms of the other contract

- It would be best to disclose your intentions in the application for supplemental funding. The existence of these funds will not directly affect the review of the proposal.

REM proposals must be submitted through the lead institution

– Sub-award(s) can be made to the collaborating institutions for RP support and REM activities

You do not need an external evaluator

- Past REM sites have used external evaluators or "in house" evaluations resources

- You may choose to leverage institutional resources by using someone within your university who is skilled in evaluation. Outcomes of interest to NSF can be measured internally.
  - *Was research accelerated/enhanced?*
  - *Data on participation from underrepresented groups.*
  - *Were the research participants inspired to adjust their STEM career trajectories?*
  - *What evidence can you provide?*

The composition of your REM cohort is up to you to create

– You may recruit undergraduates, high school teachers, high school students, professors/instructors from Minority-Serving Institutions, veterans, high school and middle school counselors

– You may have a mixed career stage cohort model. Such plans can provide for multi-level, multi-directional mentoring.

– You may include previous REM Research Participants

Questions

Use the Q&A Function to enter your question(s)