

Office of Emerging Frontiers and  
Multidisciplinary Activities (EFMA)



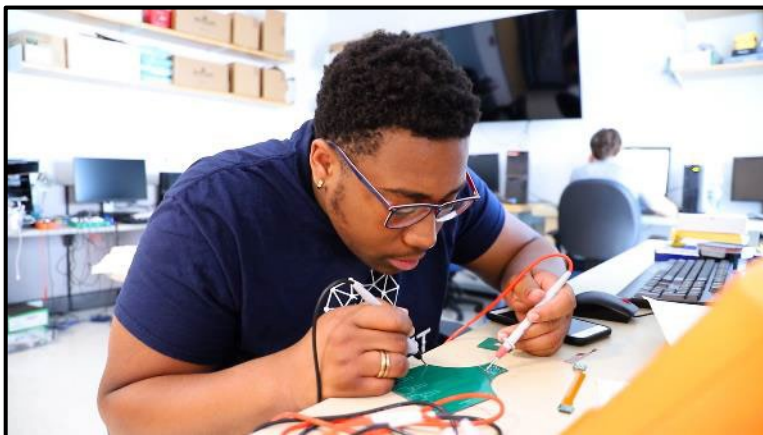
# Research Experience & Mentoring (REM)

**Informational Webinar**  
**September 29<sup>th</sup>, 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](mailto:alismith@nsf.gov)

# Welcome & Introductions



## Sohi Rastegar

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Senior Advisor, ENG

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**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 six or more Research Participants (RPs)

REM funding aims to both:

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](mailto: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:

- *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*

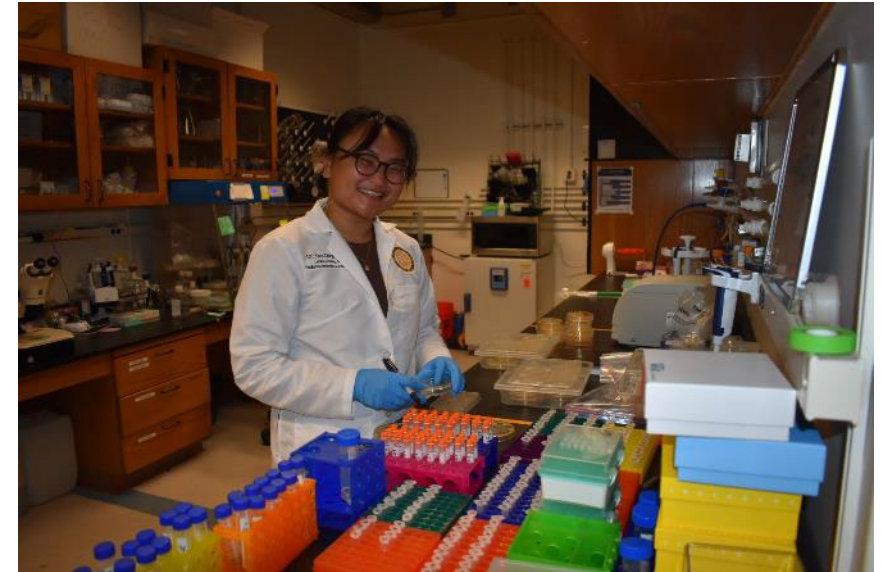


Photo Credit: Alias Smith, NSF

**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](http://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 EFRI, ERC, and IUCRC to develop mentoring best practices
- Catalyzing and strengthening the REM community



# Important Dates & Information

- REM proposal deadline: **November 6<sup>th</sup>, 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.
- Robust justification must be given for proposals with less than 6 research participants.

## 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)**