



# MPS-ASCEND EXTERNAL MENTORING (MPS-ASCEND EM)

## Mathematical and Physical Sciences External Mentoring (MPS-Ascend EM) Program Solicitation ([NSF 22-524](#))

Proposal Deadline, Feb. 15, 2022

*Program Contact:*

Michelle Bushey (703) 292-4938, [mbushey@nsf.gov](mailto:mbushey@nsf.gov)

Program Director

Office of Multidisciplinary Activities

Directorate for Mathematical and Physical Sciences

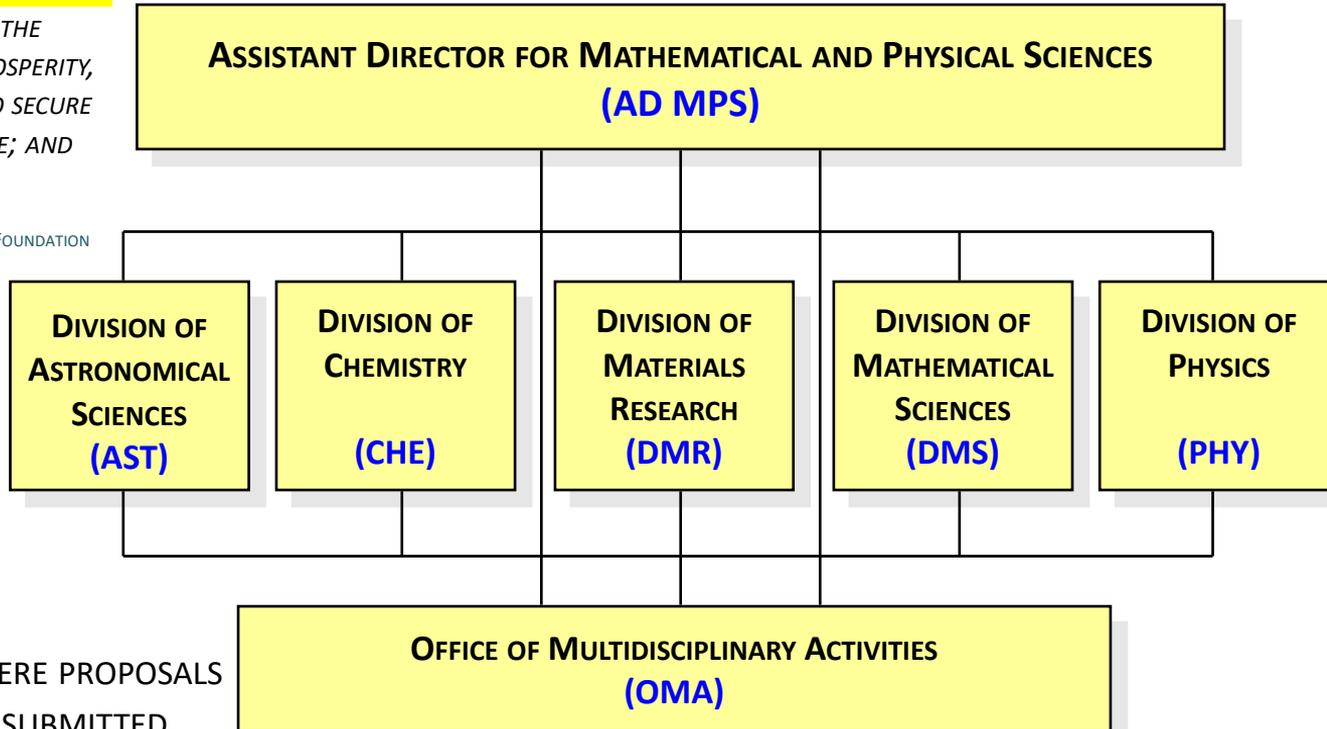
National Science Foundation



# MATHEMATICAL AND PHYSICAL SCIENCES

**TO PROMOTE THE PROGRESS OF SCIENCE;** TO ADVANCE THE NATIONAL HEALTH, PROSPERITY, AND WELFARE; AND TO SECURE THE NATIONAL DEFENSE; AND FOR OTHER PURPOSES.

— FROM THE NATIONAL SCIENCE FOUNDATION ACT OF 1950 (P.L. 81-507)



WHERE PROPOSALS  
ARE SUBMITTED



DR. SEAN JONES



# THE MPS-ASCEND EXTERNAL MENTORING SOLICITATION

- PURPOSE. To fund an institution (or collaboration of institutions) to provide a mentored career development program specifically designed for two cohorts of MPS-Ascend Fellows funded through the Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships (MPS-Ascend [NSF 21-573](#), and [NSF 22-501](#)) programs.
- INTENT. Activities should be designed to:
  - build cohort experiences for MPS-Ascend Fellows
  - provide professional development opportunities
  - provide appropriate mentoring and professional networks to allow the Fellows to transition into, advance, and succeed in independent academic (or other) research careers.



## ELIGIBILITY

- The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG), Chapter I.E. Unaffiliated individuals are not eligible to submit proposals in response to this solicitation.
- An organization may participate in up to two proposals as the lead or as a non-lead collaborating organization or as a sub awardee, but only in at most one of these can an organization participate as the lead organization.
- A proposer may participate as a PI, co-PI, or Senior Personnel on one proposal.



## DURATION AND LEVEL OF SUPPORT

---

**One three year award for up to \$900,000 will be awarded.**

FY21 Ascend Fellows began fellowships between ~Sept, 2021 and Jan. 2022

FY22 Ascend Fellows will begin fellowships between ~May 1, 2022 and Oct. 1, 2022

Each Fellowship can last up to 36 months.

The Ascend EM Award is expected to begin ~July 2022- Oct. 2022.



# WHO ARE THE ASCEND FELLOWS?

- MPS-Ascend [NSF 21-573](#), and [NSF 22-501](#)
- There are two distinct MPS-Ascend Program Fellow cohorts and each includes all MPS disciplines; the proposed activities should include all MPS disciplines.
  - 33 Fellows are supported by NSF 21-573 and
  - TBD supported by NSF 22-501.
- The [Ascend Program](#) page provides a link to the FY21 list in the [NSF Abstract Search system](#).
- The [MPS BP page](#) provides a link to a [PDF](#) introducing each fellow in the Current Funding Opportunities section.



# ASCEND FELLOWS: BROADENING PARTICIPATION IN MPS FIELDS

- For the purposes of the Ascend Fellows Solicitations - Underrepresented Groups (URGs) is defined as - Blacks or African Americans, Hispanics, Latinos, and Native Americans (incl. Alaska Natives, Native Hawaiians or other Native Pacific Islanders).
- Applicants are not required to be members of groups indicated above. But many in the FY 21 cohort are in those groups.
- Applicants must have a substantive plan to broaden participation of these URGs in MPS fields. A record of previous interest and participation in activities that broaden participation of these groups is desirable.



## EXPECTATIONS OF THE EM (1)

- Each cohort is mentored separately. Bringing each cohort of Fellows together for workshops or other activities is encouraged, either virtually or in person (when possible and safe).
- Provide career mentoring aimed at building success at the postdoctoral level as Fellows prepare to transition to the next career stage. MPS anticipates that preparation for faculty careers will be a major focus of the program, although other career paths should also be addressed.
  - Topics could include academic and other scientific career job search strategies; leadership; negotiation; communication skills; networking; grant proposal preparation (for NSF and other agencies, as appropriate); scientific publishing; laboratory management (where appropriate); budgeting; hiring; mentoring; surmounting challenges; managing career challenges and expectations; academic advancement; and balancing teaching, research, service, and life-work balance.



## EXPECTATIONS OF THE EM (2)

- Provide activities that encourage network building and mutual support among the Fellows. Workshops and meetings should be considered. A meeting at NSF for Fellows to present their work could be included among these activities or addressed separately in a future request.
- Build a national network of volunteer experts in MPS fields that will be available to the Fellows for less formal mentoring. Informal mentors who are knowledgeable about the potential barriers for members of URGs in STEM fields would be especially welcome. Approaches that address intersectional perspectives; peer to peer mentoring within the cohorts; peer to near-peer mentoring between the two cohorts are all encouraged.
- Potential PIs are encouraged to consider mentoring and professional development models from other programs and agencies. Proposals must demonstrate how the program addresses the needs of disciplines served by MPS.



# ASCEND FELLOW EXTERNAL MENTORING: PROJECT SUMMARY

The project summary may not be more than one page in length and must consist of three parts:

- In the Overview section, give a summary of the proposed effort, and briefly describe how this project will impact MPS-Ascend Fellows in all MPS fields. In addition, briefly describe any proposed partnerships; and
- Provide a succinct summary of the intellectual merit of the proposed project;
- Describe the broader impacts of the proposed work, including the potential long-term impact on both the NSF supported MPS-Ascend Fellows and broadening participation efforts across MPS fields.



# MPS-ASCEND EM PROPOSAL: KEY COMPONENTS (1)

## PROJECT DESCRIPTION:

The Project Description should describe a comprehensive plan for career mentoring, cohort building, and professional development for the MPS-Ascend Fellows.

An individual plan for each of these three aspects should be included, as well as a description of how each aspect will work together for the benefit of the two cohorts of Fellows.



# MPS-ASCEND EM PROPOSAL: KEY COMPONENTS (2)

## PROJECT DESCRIPTION:

The plans for creating a network of informal mentors (including scientists familiar with the challenges that can face underrepresented groups, especially Blacks or African Americans, Hispanics, Latinos, and Native Americans, Alaska Natives, Native Hawaiians and other Native Pacific Islanders in STEM fields) should also be described.

Assessment is an important part of this project, and a formative and summative project assessment plan and mechanisms to address any needed changes should be included. For proposals with more than one partner, the role of each partner should be described, as well as the overall management plan.



# Merit Review Criteria (1)

---

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.



## Merit Review Criteria (2)

### **Additional Solicitation Specific Review Criteria**

The Ascend-EM proposals will also be evaluated on the following:

- Are the planned activities appropriate, with value across MPS fields?
- Are the plans to provide professional development activities appropriate and well considered? Do they have the potential to prepare MPS-Ascend Fellows for leadership roles in their fields? Are differences in scientific approaches (large collaborations, table-top science, interdisciplinary, theory, etc) addressed satisfactorily?
- Are the plans for building a cohort experience across the Fellows well thought out?



## Merit Review Criteria (3)

### **Additional Solicitation Specific Review Criteria (cont'.)**

- Are the plans for career mentoring well thought out?
- Is there a plan for creating a network of informal mentors (including scientists familiar with the challenges that can face members of underrepresented groups, especially Blacks or African Americans, Hispanics, Latinos, and Native Americans, Alaska Natives, Native Hawaiians and other Native Pacific Islanders in STEM fields)? Is the plan likely to succeed?
- Is the project assessment plan and mechanisms to address any needed changes adequate?



THANKS! QUESTIONS?

---

MICHELLE BUSHEY, OMA, (703) 292-4938, [MBUSHEY@NSF.GOV](mailto:MBUSHEY@NSF.GOV)