



# Mid-Career Advancement Program 22-603

- *Biological Sciences*
- *Geosciences*
- *Social, Behavioral and Economic Sciences*
- *STEM Education*
- *Technology, Innovation and Partnerships*

**Virtual Office Hour: Jan 8<sup>th</sup>, 2025**

# Mid-Career Advancement (MCA) Program – 22-603

**NSF participation:** BIO (all), GEO (all), SBE, EDU, TIP, ... *not MPS, CISE, or ENG*

*FAQs: see NSF 23-022*

- **Who:** Scientists and engineers at the Associate Professor rank (or equivalent) with at least 3 years at that rank
  - PUI Track in BIO and GEO extends eligibility to Full Professors at Primarily Undergraduate Institutions only
- **What:** An opportunity to substantively enhance and advance the PI's research program and career trajectory through synergistic and mutually beneficial mentored partnerships [provides time (6.5 months), training, and \$100K for research]
- **Target submission window:** 1<sup>st</sup> February - 3<sup>rd</sup> March 2025



# MCA addresses specific challenges at mid-career stage, distinct from first establishing a research identity



## Recruitment & Support for Beginning Investigators: REUs, GRFP, PRFB, CAREER

- Fresh out of PhD/postdoc training
- Startup \$ for research
- More equal gender/racial distribution



## Retention and Advancement - Mid-Career Investigators MCA

- Time to refresh/retool (> 6 yrs since postdoc training)
- Increased service (little time or \$ for research)
- Skewed gender/racial distribution



# Mid-Career Advancement Program (22-603)

- **Primary Objective:** To ensure scientists and engineers remain engaged and active in cutting-edge research at a critical career stage that is replete with constraints on time that can impinge on research productivity, with consequences for retention and career advancement.





# Mid-Career Advancement Program (22-603)

## Distinctive aspects:

- a) the only **cross-directorate** NSF program targeted at the mid-career stage,
- b) provides protected time > 2 months per summer, and resources to work closely with a Partner(s)\*,
- c) supports developing a strategy for career advancement not otherwise likely to occur.



# MCA PI Spotlight



**Emily Lemmon**  
Florida State University  
Dept of Biology  
**BIO Directorate**

The **MCA** award enabled me to make a **life-shift** at a time in my career when I was weighed down by academic and other responsibilities.

I have now **re-trained** in a new field, built **new collaborations**, caught up my research again to the cutting edge of my field, and submitted a **new grant proposal** that builds off my data from the MCA.

I will always be grateful to NSF for having the confidence that mid-career academics still have **great ideas** to contribute to science.



# Motivation for the MCA Program:



Broadening  
Participation



Convergent  
Research



Workforce  
Development

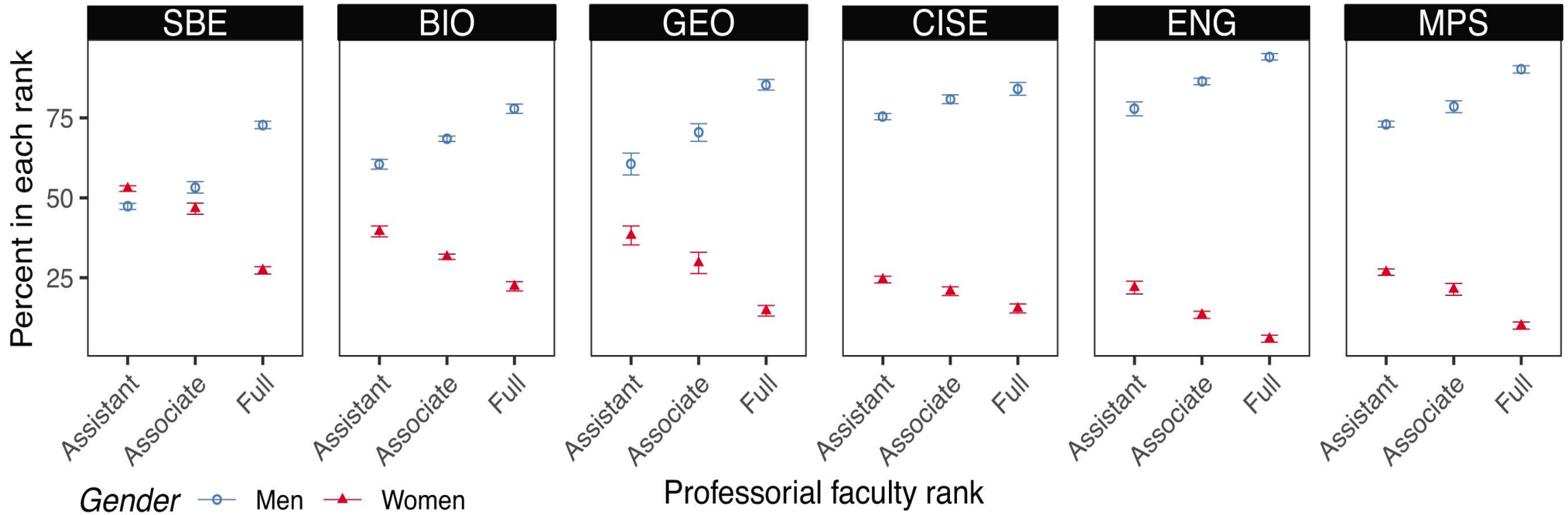


Fostering  
Innovation



## Motivation: Broadening Participation

# Women's representation decreases as academic rank increases



Rissler, Hale et al. 2020. Gender differences in grant submissions across science and engineering fields at the NSF. *Bioscience* 70 (9): 814-820.  
<https://doi.org/10.1093/biosci/biaa072>



# Motivation: cross-disciplinary innovation and training



Broadening  
Participation



Convergent  
Research



Workforce  
Development



Fostering  
Innovation

# MCA PI Spotlight



**Arash Esmaili Zaghi**

University of Connecticut

Dept of Civil and Environmental Engineering

**EDU Directorate**

The **MCA** has been **transformative** for both my research and career.

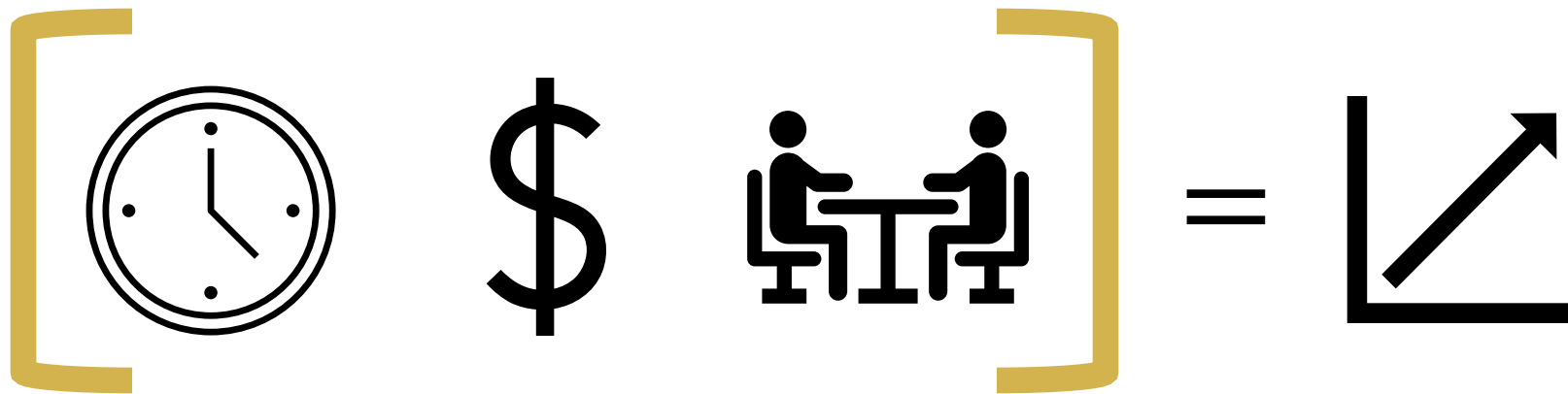
It empowered me to explore unconventional, **high-impact ideas** at the intersection of AI, neurodiversity, and education areas where my ADHD brain thrives.

This award legitimized my transdisciplinary work, opening doors to **bold research** that challenges established paradigms and drives innovation.



# Key Point: make your case in the Project Description and Impact Statement

The PI must demonstrate that their research program could substantively benefit from the protected time and resources provided by this program, such that there is a substantial enhancement to their research, opportunities and trajectory. The proposed activities will enable scientific and academic advancement in ways *not likely to be available without such support*.



# Budget Details

**Protected Time (salary):** Up to a total of 6.5 months of salary (plus fringe) over the course of the 3-yr grant, not yearly.

**Resources (direct costs):** \$100,000.00 in support of the research advancement and training plan, can include travel.

**Partner:** Up to 1 month of summer salary (total, not yearly), or other reasonable costs, for each partner.





# MCA Impact Statement – separate 2 pgs, uploaded as Supplementary Documentation

- Information on past or current constraints to PI's time and resources available for carrying out research;
- The impact of an MCA award on the PI's research and career trajectory, and, if relevant, address more far-reaching impacts including those on the PI's discipline, department, and/or institution.



# **PUI Track for PIs at PUIs whose research is funded by:**



**Biological Sciences**



**Geosciences**

PI eligibility has been extended to Full Professors only  
at Primarily Undergraduate Institutions

# MCA Participation in FY25

## ★ Directorate for Biological Sciences

Division of Environmental Biology  
Division of Molecular and Cellular Biosciences  
Division of Biological Infrastructure  
Division of Integrative Organismal Systems

## Directorate for STEM Education

Division of Graduate Education  
Division of Undergraduate Education  
Division of Equity for Excellence in STEM  
Research on Learning in Formal and Informal Settings

## ★ Directorate for Geosciences

Division of Atmospheric and Geospace Sciences  
Division of Earth Sciences  
Division of Ocean Sciences  
Office of Polar Programs

*Office of Integrative Activities*

## Directorate for Social, Behavioral and Economic Sciences

SBE Office of Multidisciplinary Activities  
Division of Behavioral and Cognitive Sciences  
Division of Social and Economic Sciences



★ Participating in the PUI track in 2025

# Submit using solicitation 22-603 on the Cover Page, and choose a participating program (e.g., Division of Molecular and Cellular Biosciences)

- 1) Title must begin with “MCA: “ or “MCA Pilot PUI: “
- 2) In addition to PAPPG requirements (Intellectual Merit and Broader Impacts), proposals must include the following sections:
  - Section 1: Candidate’s Past Research
  - Section 2: Candidate’s Proposed Research Advancement and Training Plan
  - Section 3: Candidate’s Long-Term Career Plans
- 3) References Cited
- 4) Biographical Sketches – for the PI and for each Partner (uploaded as Supplementary Docs)
- 5) Additional Supplementary Documentation
  - Impact Statement (2 pages)
  - Letter(s) of Collaboration (written by the Partner)
  - Departmental Letter





# MCA Program Officers

## BIO



Leslie  
Rissler



Jennifer  
Weller



Melissa  
Coleman



Elizabeth  
Sztul

## EDU



Kathleen  
Ehm

## GEO



Rachel  
Teasdale

## SBE



Tarini  
Bedi

## OIA/RCC



Casonya  
Johnson

For questions, email  
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