National Institute of General Medical Sciences

Jon R. Lorsch, Ph.D., Director

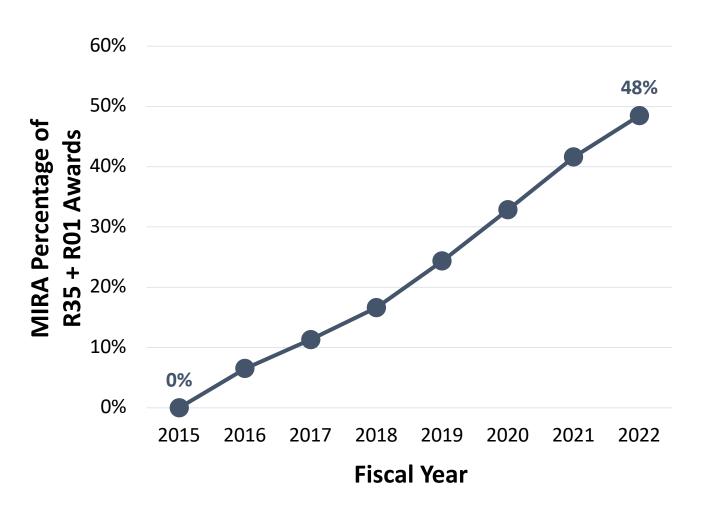National Institute of General Medical Sciences

August 17, 2023

Update from NIGMS

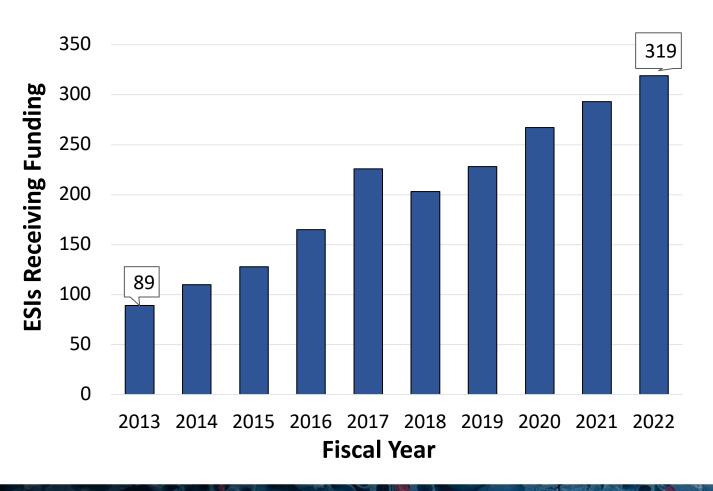# Maximizing Investigators' Research Awards (MIRA) Program

- One grant per PI to provide support for their NIGMS-related research program

  ○ Cannot apply for other NIGMS research grants (with a few exceptions)

- MIRA grants are longer and on average larger than NIGMS R01s

- Flexible: No specific aims; research can change direction

- High renewal rates, significantly higher than for R01s (~2x)

- Eligibility: Early-stage investigators (ESIs), established investigators with at least one single PI NIGMS R01-equivalent grant, new investigators (NIs)

  ○ Research must be within the NIGMS mission – PIs should contact a program officer before writing an application!

https://nigms.nih.gov/Research/mechanisms/MIRA

NIGMS MIRA Awards Percentage of Total R01 and MIRA Pool FY 2015-2022

- In FY 2022, MIRA represented 48% of the R35 MIRA + R01 award pool, an increase of 6 percentage points from the previous fiscal year.

- NIGMS awarded 2,054 R35 MIRAs and 2,182 R01s in FY 2022.

- NIGMS targets MIRAs to comprise at least 60% of the R01-equivalent pool by 2025.

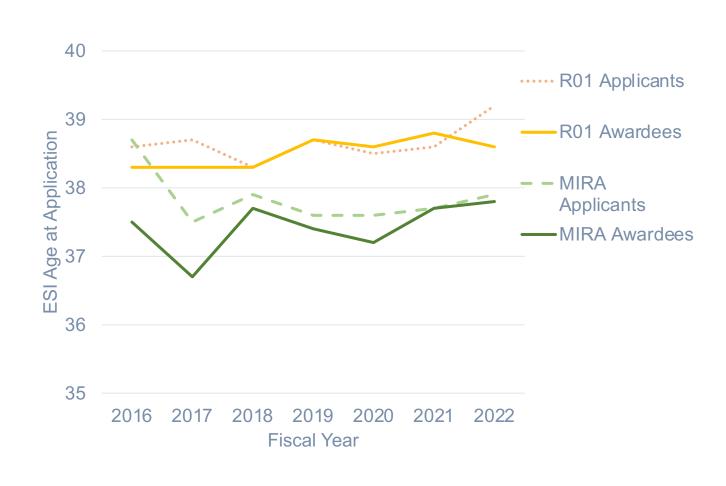# NIGMS Competing Early-Stage Investigator (ESI) Awardees FY 2013-2022

- In FY 2022, NIGMS made R01-equivalent awards to 319 ESIs: (31 R01 awards, 268 R35 MIRA awards and 20 DP2 awards).

- This represents the highest number of ESIs supported by NIGMS since creation of the investigator category.

- Nearly 85% of the ESIs awarded in FY 2022 received R35 MIRAs.

- See Feedback Loop Post for more details: https://loop.nigms.nih.gov/2023/04/application-and-funding-trends-in-fiscal-year-2022/

ESI Ages: NIGMS R01 vs. MIRA Grantees

- ESI MIRA applicants and awardees are typically about a year younger than ESI R01 applicants and awardees.
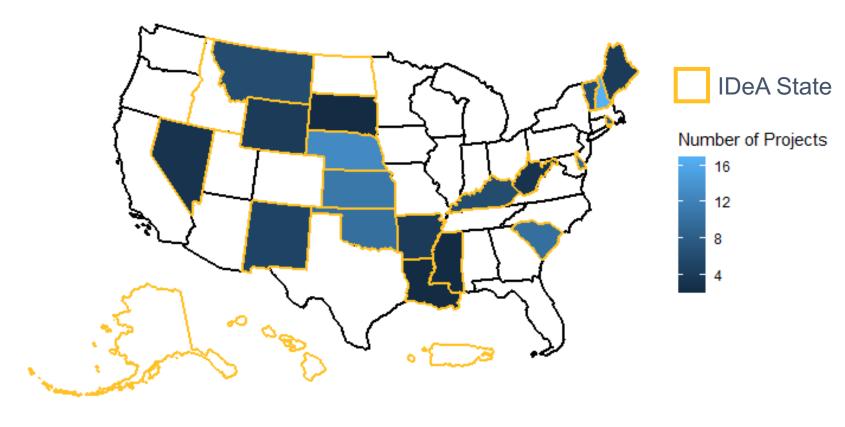
- Over 60% of investigators applying for ESI MIRA in 2022 did so within 2 years of their first Assistant Professor or equivalent position.
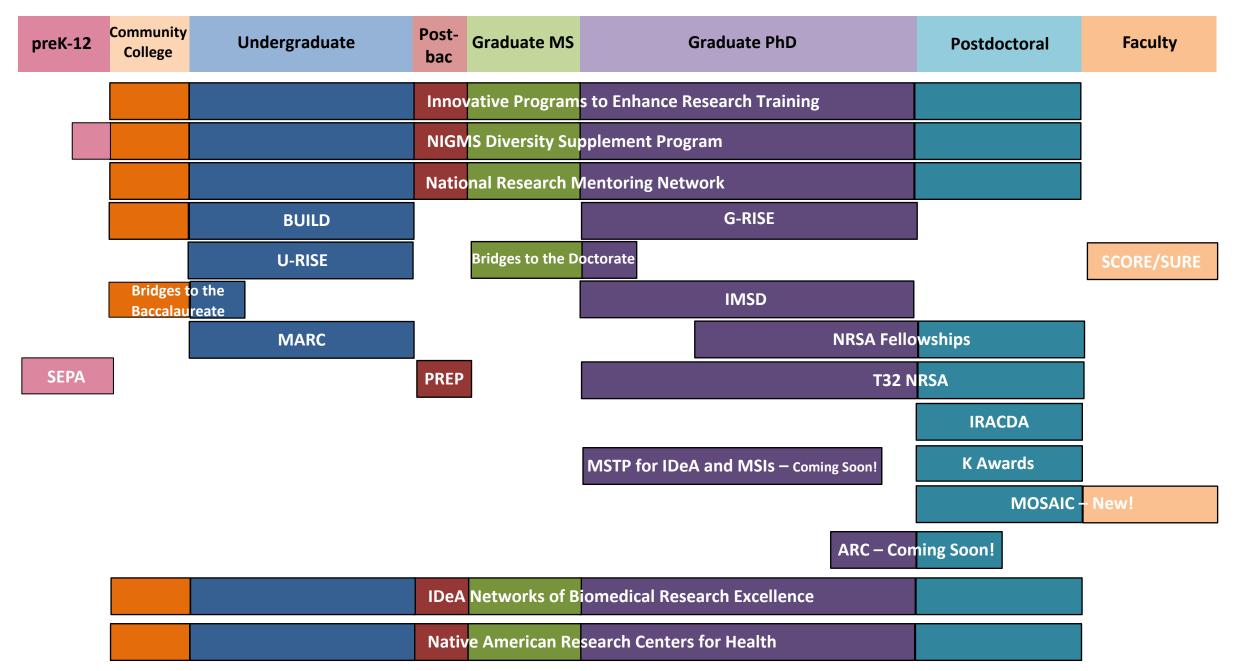
NIGMS MIRA Program in IDeA States

In FY 2022 NIGMS supported R35 MIRA awards in 46 states, including 19 IDeA states.

	ESI MIRA Projects	EI MIRA Projects
IDeA States	72	53
Delaware	7	2

NIGMS Training, Workforce Development, and Diversity Programs

preK-12	Community College	Undergraduate	Post-bac	Graduate MS	Graduate PhD	Postdoctoral	Faculty

Innovative Programs to Enhance Research Training

NIGMS Diversity Supplement Program

National Research Mentoring Network

BUILD

G-RISE

U-RISE

Bridges to the Doctorate

SCORE/SURE

Bridges to the Baccalaureate

IMSD

MARC

NRSA Fellowships

SEPA

PREP

T32 NRSA

IRACDA

MSTP for IDeA and MSIs — Coming Soon!

K Awards

MOSAIC – New!

ARC – Coming Soon!

IDeA Networks of Biomedical Research Excellence

Native American Research Centers for Health

Expansion of Science Education Partnership Awards (SEPA) Program!

- PAR-23-137

- 21 NIH ICOs signed on to be able to fund SEPA grants

- SEPA awardees funded by all ICs will participate in program-wide activities

- Goal is to fund <u>more</u> SEPA grants

- We want to see **<u>MORE</u>** SEPA applications!

MOSAIC Program Updates

- Enhance diversity of faculty in research-intensive positions

- Diversity-focused K99/R00s and UE5 Mentoring Hubs (AAMC, ASBMB, ASCB, ASM – *need neurosci.*)

- 23 NIH ICOs currently participate in MOSAIC

- 80 K99s awarded FY21-22 by 16 ICs (~50% success rate)

- MOSAIC scholars - ~80% women, ~70% URM

- ≥42 scholars have already started or accepted faculty positions (including Marco Messina at U.D. and Jennifer Landino at Dartmouth)

- Scholars' bios: go.usa.gov/xuR35

Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC)

New NIGMS Training, Workforce Development and Diversity Programs

- Advancing Research Careers (ARC) diversity-focused F99/K00 graduate student to postdoc transition program

  - Similar model as MOSAIC – cohorts and mentoring centers

- Second branch of Medical Scientist Training Program (MSTP): Leading Equity and Diversity (LEAD) MSTP

  - Eligibility limited to HBCUs, TCUs, and IDeA State institutions

  - PAR-23-030; first due date February 10, 2023

- Undergraduate and graduate training grants for Tribal Organizations

The NIH UNITE Initiative

U — Understanding stakeholder experiences through listening and learning

N — New research on health disparities/minority health/health equity

I — Improving the NIH Culture and Structure for Equity, Inclusion, and Excellence

T — Transparency, communication, and accountability with our internal and external stakeholders

E — Extramural Research Ecosystem: Changing Policy, Culture, and Structure to Promote Workforce Diversity
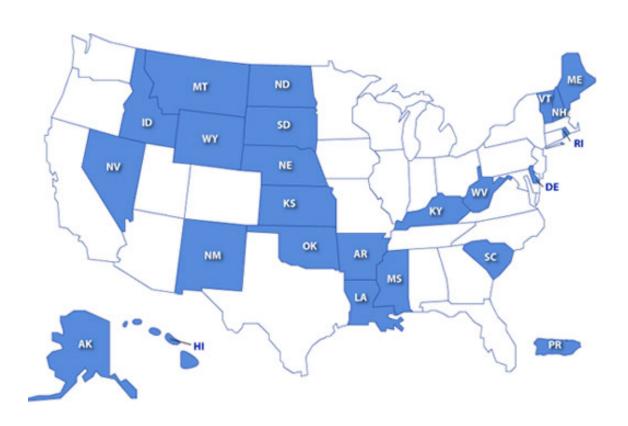
UNITE Funding Opportunities

- Research With Activities Related to Diversity (ReWARD)
  - R01 program for investigators who have done exceptional things to promote DEIA and who currently have no NIH Research Project Grant funding
  - Supports investigator's research and continued DEIA activities
  - PAR-23-122; first application due date is June 5, 2023

- Instrumentation Grant Program for Resource-Limited Institutions (RLI-S10)
  - Aims to enhance research capacity and educational opportunities at resource-limited institutions by providing funds to purchase modern, scientific instrumentation
  - Equipment can be used for research and education
  - Major users do not need to be NIH funded
  - PAR-23-138; first application due date is July 3, 2023

UNITE Funding Opportunities

- The STrengthening Research Opportunities for NIH Grants (STRONG) program

  - Will provide support for resource-limited institutions to conduct research capacity needs assessments and use the results to develop strategic action plans

  - PAR-23-144; first application due date is September 18, 2023

NIGMS IDeA Program

- **IDeA Networks of Biomedical Research Excellence (INBRE)**

  - Link one or more research-intensive institution in an IDeA state to Primarily Undergraduate Institutions in the state

- **Centers of Biomedical Research Excellence (COBRE)**

  - Develop research capacity in broad scientific areas with a focus on early-career independent researchers

- **IDeA Clinical and Translational Research Programs**

INBRE

- Can you include HBCUs and TCUs in your state in network activities more?

- Explore the use of cloud computing for your data science and other cores and for teaching and research

  - For example, through the NIGMS Sandbox and NIH STRIDES program

  - https://cloud.nih.gov

  - https://nigms.nih.gov/News/meetings/Pages/NIGMS-Sandbox-A-Cloud-Based-Learning-Platform.aspx

- Make use of undergraduate research opportunities in labs throughout the network

COBRE

- Make sure proposed scientific focus areas are sufficiently broad to warrant significant growth and that they align with institutional strategic priorities

  - Examples: Data science, structural biology, critical care medicine, health disparities and equity

- The long-term existence of the center is not the goal. The goal is to build a cadre of successful researchers working in an area of strategic importance.

- In order to have successful translational research you need to have vibrant basic and clinical research in your state

CTRs

- Keep working on community engagement through Practice-Based Research Networks and other means

- Collaborate and synergize with other CTRs and IDeA programs

  - IDeA Clinical Research Resource Center (I-CRRC) at WVU

  - IDeA States Pediatric Clinical Trials Network

    - https://www.nejm.org/doi/pdf/10.1056/NEJMoa2214470

- Collaborate with CTSAs when it makes sense but maintain your independence
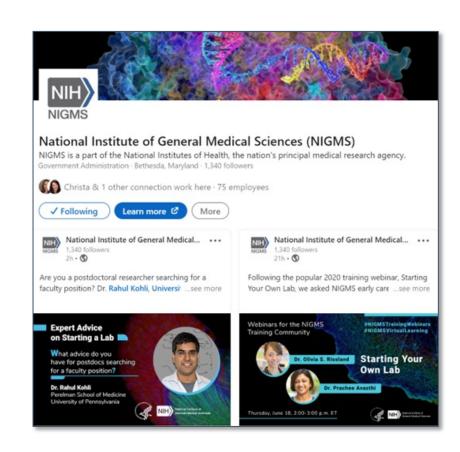
Subscribe to *Feedback Loop* Blog

- *Feedback Loop* is primarily intended for current NIGMS grantees, applicants, and others in the scientific community

- Provides the latest on NIGMS funding opportunities, meetings, resources, and other useful information

- Two subscription options: receive posts as they happen or in digest format

loop.nigms.nih.gov

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New NIGMS LinkedIn Page

- Connect with NIGMS on our recently launched LinkedIn page

- Sharing information on funding opportunities, job announcements, STEM education resources, researcher features, and other news from NIGMS

- Follow the page: bit.ly/44BVm0O

National Institute of General Medical Sciences

NIGMS *Biomedical Beat* Blog

- Stories about NIGMS-funded research and scientists, geared for the general public and students

- Subscribe to receive emails about new posts

- https://biobeat.nigms.nih.gov

MARCH 8, 2023

Launching Biomedical Careers for Students Who Are Deaf and Hard of Hearing

BY KIMBERLY ROUSSEAU

0 comments

Scientists who are deaf and hard of hearing (DHH) are underrepresented at all career stages, especially at the Ph.D. level. To address this, the Undergraduate Research Training Initiative for Student Enhancement (U-RISE) training program for undergraduates who are deaf and hard of hearing at the Rochester Institute of Technology (RIT) in Rochester, New York, has committed to lifting barriers and increasing DHH representation in science.
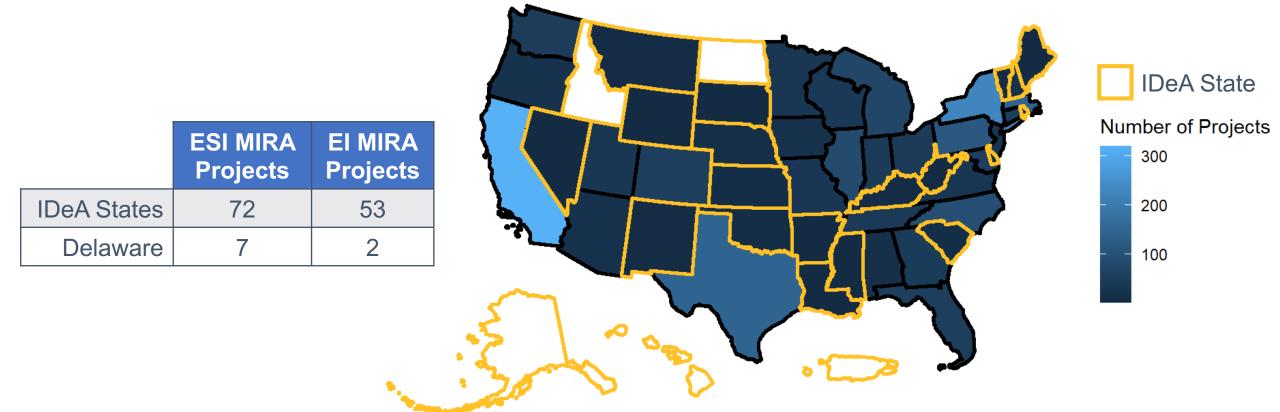
Group of RIT U-RISE students, including Bo Allaby (standing second from the right) and Maameyaa Asiamah (kneeling in front) who are interviewed in this post. Credit: TJ Sanger.

National Institute of General Medical Sciences

Questions?

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IDeA State

Number of Projects

300

200

100

National Institute of General Medical Sciences

NIH Funding in Delaware

NIGMS provided 40% of all NIH support to Delaware in FY 2022.

The IDeA program provided approximately 68% of NIGMS support in Delaware.

NIH Funding Source	Total Support – FY 2022
Across NIH	$78,228,276
NIGMS	$31,034,658
NIGMS IDeA	$21,289,668