



National Institute of
General Medical Sciences



Jon R. Lorsch, Ph.D.,
Director

National Institute of
General Medical
Sciences

May 18, 2023

National Advisory General Medical Sciences Council

Ad hoc Council Participants

Mark Dresser, Ph.D.

Senior Vice President
Biomarker Sciences and Clinical Pharmacology
Gilead Sciences



Brent Iverson, Ph.D.

Warren J. and Viola Mae Raymer Professorship
Distinguished Teaching Professor
Department of Chemistry
University of Texas at Austin



Early Career Investigator *Ad hoc* Council Participants

Paola E. Mera, Ph.D.

Assistant Professor

Department of Microbiology

University of Illinois Urbana-Champaign



Julia Widom, Ph.D.

Assistant Professor

Department of Chemistry and Biochemistry

University of Oregon



NIGMS Personnel Changes

New Hires

- **Ashley Barnes, Ph.D.**, Program Director, Biomedical Technology Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences
- **Sammy Katta, Ph.D.**, Health Science Policy Analyst, Data Integration and Dissemination Branch, Division of Data Integration, Modeling, and Analytics
- **Melissa Kopyto**, Management Analyst, Division of Management
- **Rita Miller, Ph.D.**, Program Director, Developmental and Cellular Processes Branch, Division of Genetics and Molecular, Cellular, and Developmental Biology



NIGMS Personnel Changes (cont.)

Promotion

- **Ayanna Vest, J.D.**, Supervisory Management Analyst, Division of Management



Departures

- **Bob Coyne, Ph.D.**, Developmental and Cellular Processes Branch, Division of Genetics and Molecular, Cellular, and Developmental Biology (retirement)
- **Bernice Duran**, Division of Management (move to the National Center for Complementary and Integrative Health)



NIGMS Personnel Changes (cont.)

Departures (cont.)

- **Martha Garcia, Ph.D.**, Pharmacological and Physiological Sciences Branch, Division of Pharmacology, Physiology, and Biological Chemistry (move to the National Institute of Diabetes and Digestive and Kidney Diseases)
- **Joe Gindhart, Ph.D.**, Cellular Biology Branch, Division of Genetics and Molecular, Cellular, and Developmental Biology (move to the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development)
- **Frank Shewmaker, Ph.D.**, Biophysics Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences (move to the National Institute of Neurological Disorders and Stroke)



NIGMS Personnel Changes (cont.)

Departures (cont.)

- **Darren Sledjeski, Ph.D.**, Division of Extramural Activities (move to the National Institute of Arthritis and Musculoskeletal and Skin Diseases)
- **Fei Wang, Ph.D.**, Biophysics Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences (move to the National Institute on Aging)



Director, NIH Tribal Health Research Office

Karina L. Walters, Ph.D., M.S.W.

- Began the role on April 24, bringing more than 28 years of American Indian/Alaska Native (AI/AN) health research experience
- Will work to advance initiatives to ensure Tribally informed biomedical and behavioral research, enhance NIH's Tribal consultation and engagement efforts, and coordinate AI/AN research and research-related activities across NIH and with other federal entities



NIGMS Job Vacancies

- Biophysics Branch Chief, Division of Biophysics, Biomedical Technology, and Computational Biosciences
- Program Directors
 - Division of Biophysics, Biomedical Technology, and Computational Biosciences: Biophysics Branch and Bioinformatics and Computational Biosciences Branch
 - Division for Research Capacity Building: Networks and Development Programs Branch
 - Division of Genetics and Molecular, Cellular, and Developmental Biology: Cell Biology Branch and Developmental and Cellular Processes Branch
- Positions are advertised through NIH's global recruitment unit; opened May 15 and will close May 24: hr.nih.gov/jobs/global-recruitment

Save the Dates: Upcoming NIGMS Lectures

Judith H. Greenberg Early Career Investigator Lecture

- Akhila Rajan, Ph.D., Fred Hutchinson Cancer Center
- September 27, 1:00–2:00 p.m. ET
- <http://bit.ly/3K6Fdqz>



DeWitt Stetten Jr. Lecture

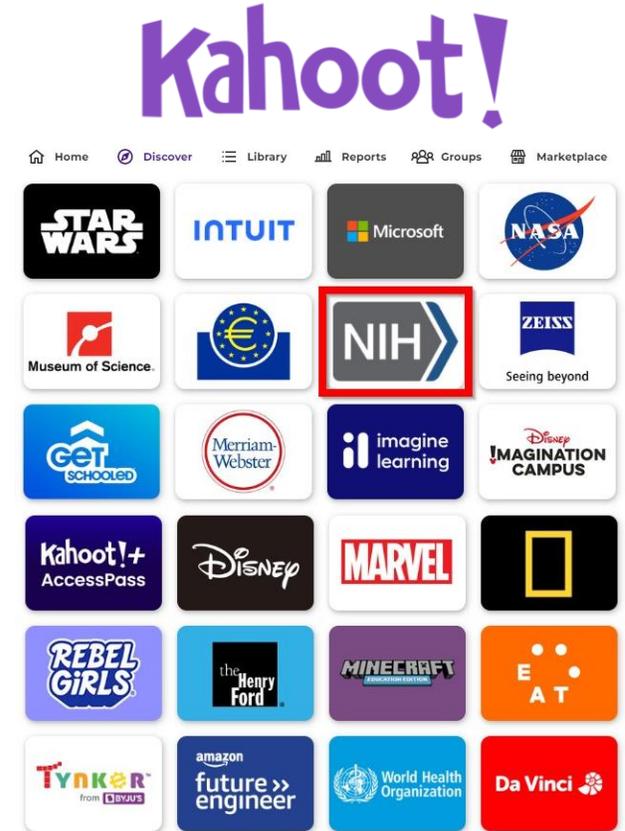
- Ryland Young, Ph.D., Texas A&M University
- November 8, 3:00–4:00 p.m. ET
- <http://bit.ly/3Mdpl8w>



Both lectures will stream via NIH Videocast: videocast.nih.gov
Additional information coming soon!

Kahoot! Partnership

- *Kahoot!* is an interactive learning platform that makes it easy to create, share, and play learning games and trivia quizzes; widely used by teachers
- NIH is now a *Kahoot!* featured partner; our content will be advertised on the main *Kahoot!* webpage for teachers to easily find and use as educational tools
- Promotional campaign planned for back-to-school timeframe



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

UNITE Institutional Prize

- NIH Institutional Excellence in DEIA Prize Competition
 - Will recognize successful initiatives that academic institutions have developed to create inclusive and supportive environments that promote DEIA
 - NIH will award up to 10 prizes of \$100,000 each
 - Read more: nihdeiaprize.org

NIH Policy Update

- Recipient organizations' internal controls should be in compliance with guidance in "Standards for Control in the Federal Government." (45 CFR 75.303(a)). Thus, **recipient organizations are expected to establish codes of conduct which define expectations of integrity and ethical values** and criteria of competence of personnel involved in the work supported by NIH grant funds.
- Codes of conduct should articulate expectations to assure compliance with terms and conditions of award, including but not limited to ... **assuring work environments are free of discriminatory harassment and are safe and conducive to high-quality work** (NIH GPS Chapter 4).

<https://nexus.od.nih.gov/all/2022/12/29/behavioral-codes-of-conduct-for-nih-award-recipients/>

Improving the Review of NRSA Fellowship Applications

Background: Persistent concerns that NRSA fellowship review disadvantages some highly-qualified and promising applicants led to creation of a CSR Advisory Council working group

Goal: To enhance the review process for identifying highly promising research scientists of the future

Data

Analysis of 6k fellowship applications: a small number of institutions submit the majority of applications; theirs do better in review and those with senior sponsors do better.

Blog comments content analysis: strong concerns about bias that favors well-funded labs and senior scientists.

Working Group Conclusion

NIH is potentially leaving out highly promising scientists because of a process that too heavily favors elite institutions, senior, well-known sponsors, and has an overly narrow emphasis on traditional markers of early academic success.

Major Recommendations

- **Revise the review criteria**
- **Revise the fellowship application for alignment with the criteria**

Details and data: https://public.csr.nih.gov/sites/default/files/2022-11/CSRAC_Fellowship_review_WG_report_September_2022_final.pdf

Key Modifications

Review Criteria

Focus reviewer attention on 3 key assessments:

- Potential of the applicant
- Strength of the science
- Quality of the training plan

Define criteria to focus on applicant's potential.

- Evaluate accomplishments and trajectory in the context of applicant's opportunities
- In addition to accomplishments, evaluate personal characteristics that contribute to success

Reduce bias in review by reducing inappropriate consideration of sponsor and institutional reputation.

- Evaluate sponsor and institution with respect to the quality of the science and of the training plan

Changes to Application

Emphasis on applicants' scientific thinking, needs, goals and a broader statement of qualifications. No grades required/allowed.

Greater emphasis on sponsor's mentorship approach and plan for *this* student (not simply track record)

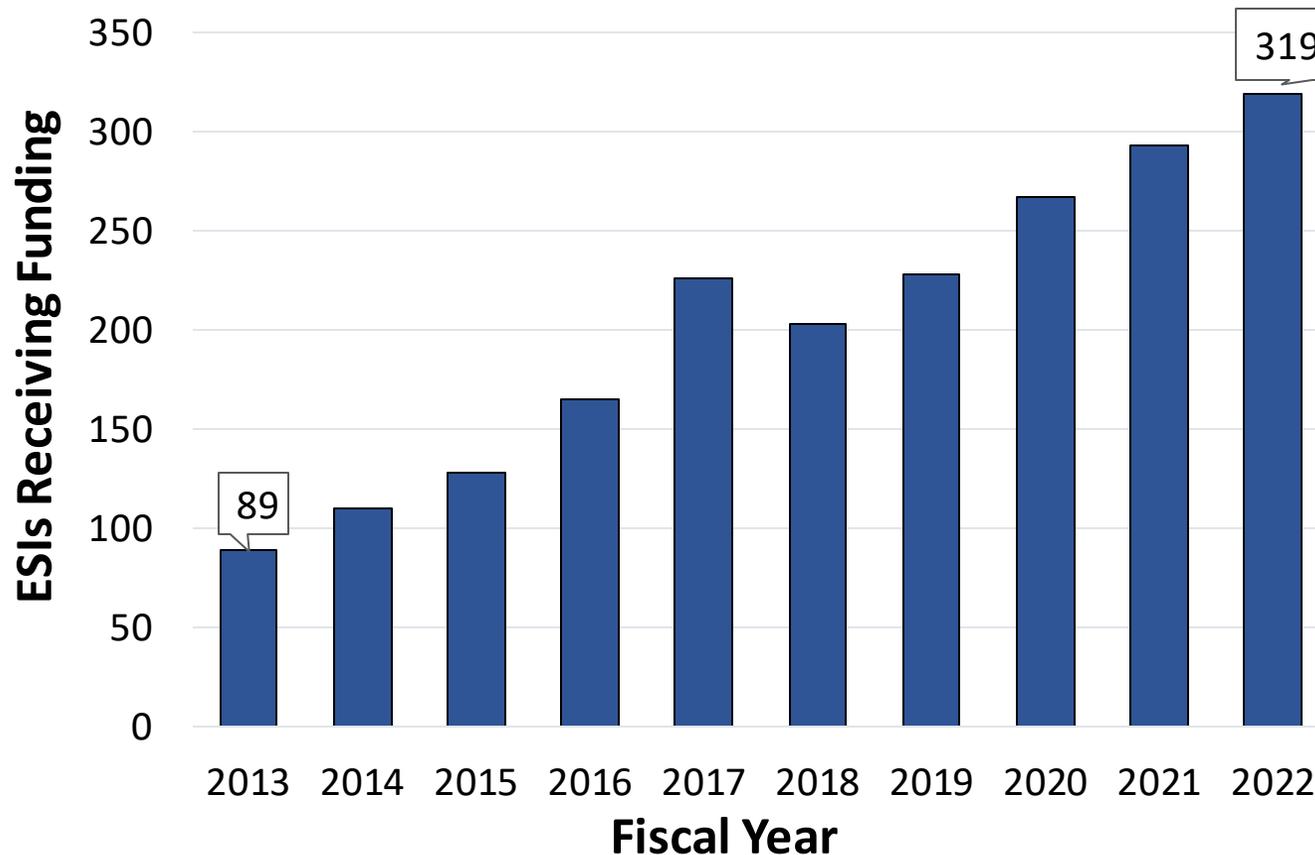
Letters of support to *include targeted, trainee-specific* questions

***Optional* statement of special circumstances** to address situations that might have hindered the trainee's progress such as harassment, the COVID-19 pandemic, or other circumstances

Seeking Your Input

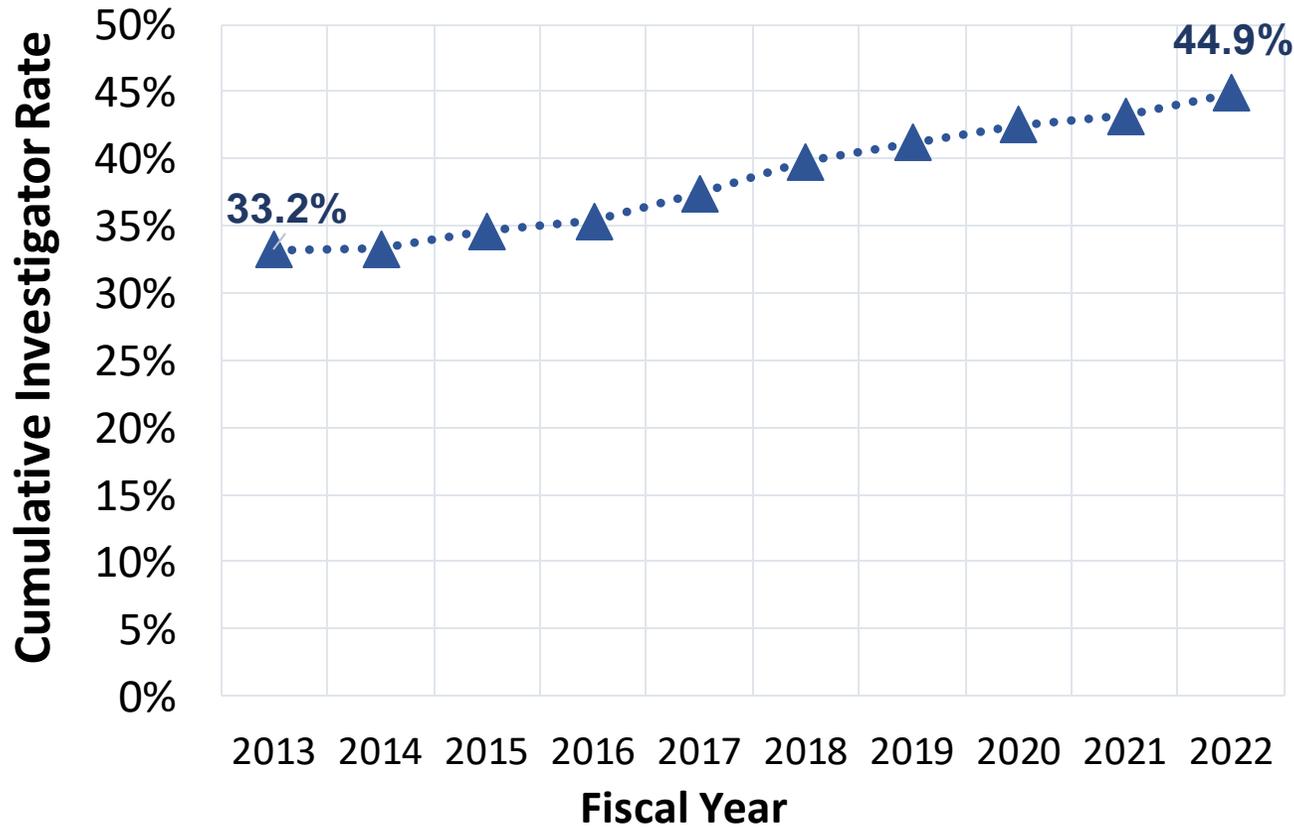
- NIH has issued a Request for Information to get community input on the proposed changes to the Fellowship application and review process
- Responses are due by June 23, 2023
- NOT-OD-23-110
- If you have questions email NRSAreview@mail.nih.gov

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



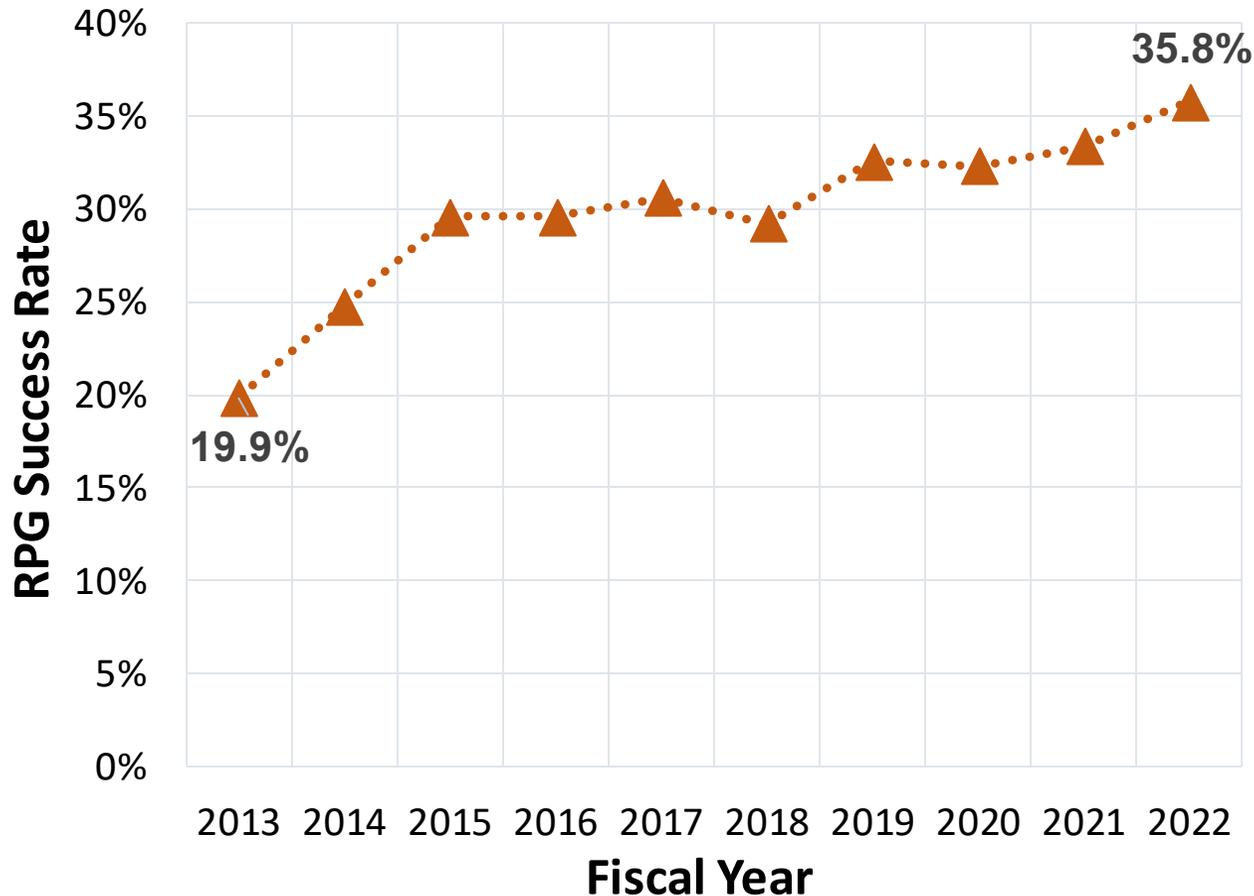
- In FY 2022, NIGMS made R01-equivalent awards to 319 ESIs: (31 R01 awards, 268 R35 MIRA awards and 20 DP2 awards).
- This represents the highest number of ESIs supported by NIGMS since creation of the investigator category.
- Nearly 85% of the ESIs awarded in FY 2022 received R35 MIRAs.
- See Feedback Loop Post for more details: <https://loop.nigms.nih.gov/2023/04/application-and-funding-trends-in-fiscal-year-2022/>

NIGMS Competing R01/R35 Cumulative Investigator Rates FY 2013-2022



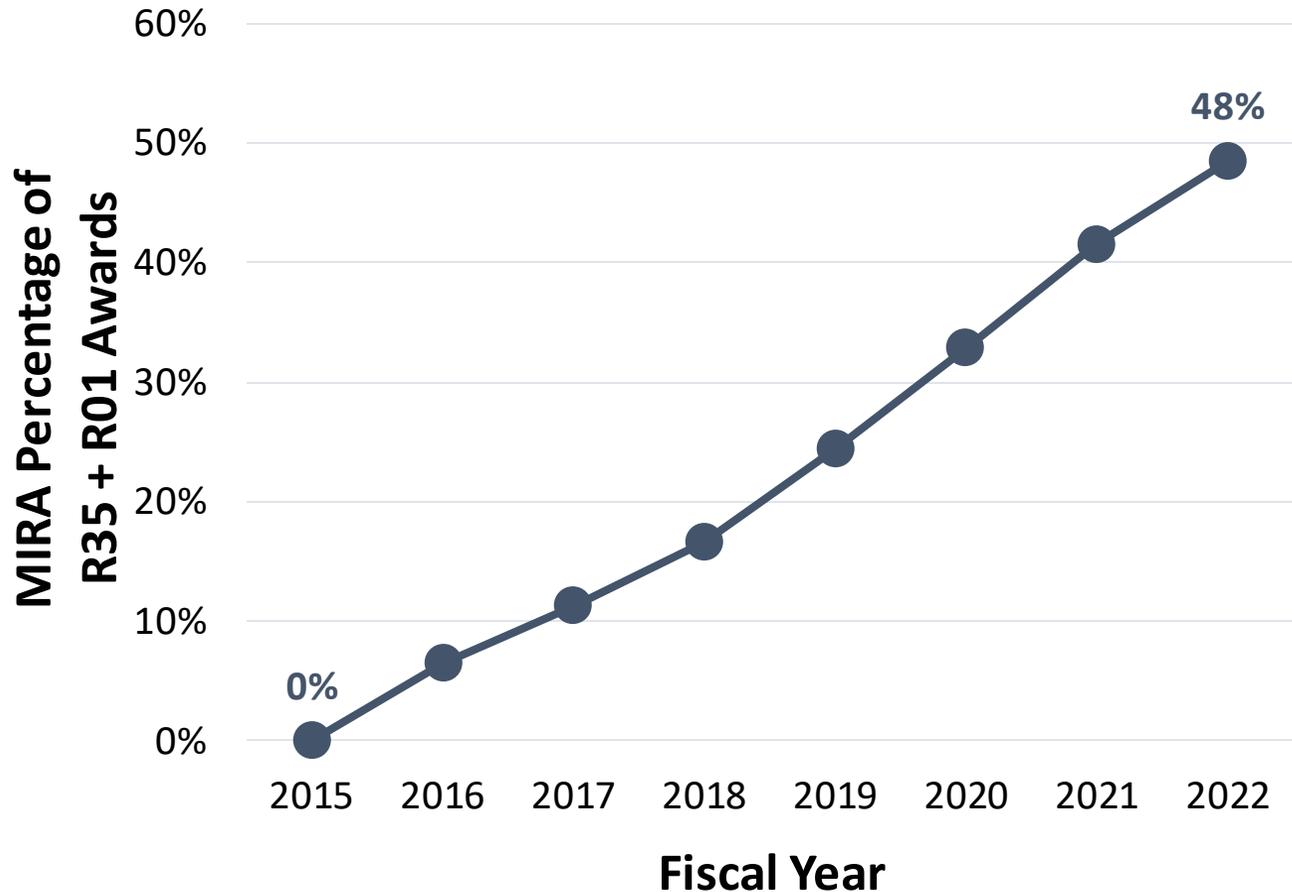
- In FY 2022, the cumulative investigator rate was 44.9%.
- Of the 9,573 investigators actively seeking funding from FY 2018 to 2022, 4,296 received awards in 2022.

NIGMS Competing Research Project Grants (RPG) Success Rates FY 2013-2022



- The success rate in FY 2022 was 35.8%, and represents the highest RPG success rate in a decade.
- Success rate is the number of competing applications funded relative to the number of distinct competing proposals received.
- In FY 2022, there were 3368 competing applications and 1207 funded competing RPGs.

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.

Communicating with the NIGMS Community

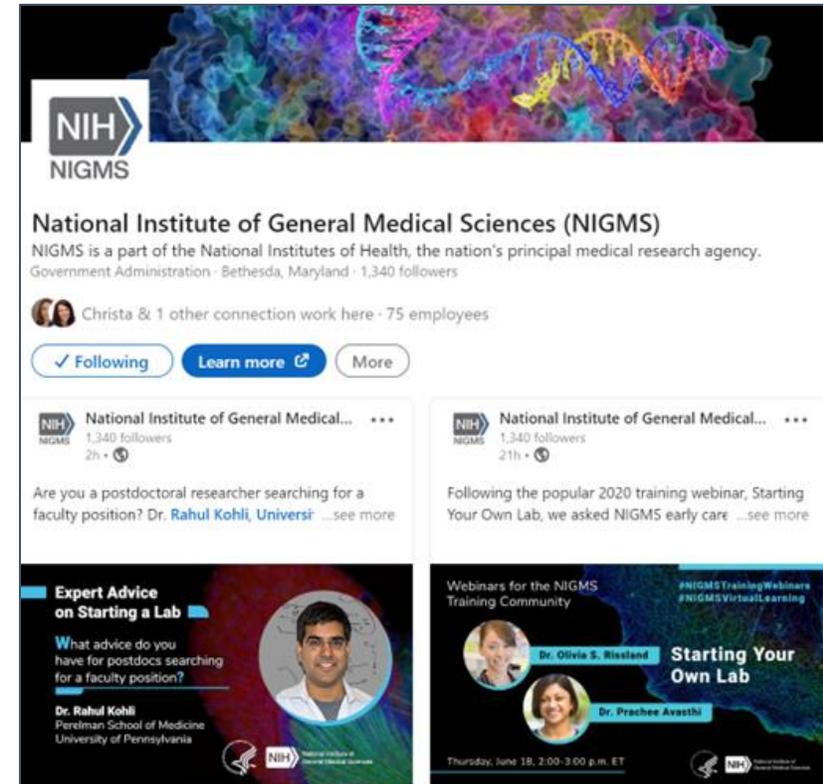
Subscribe to *Feedback Loop* Blog

- *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

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



Possible Discussion Questions

- How should we deal with the growing costs of data storage?
 - Example: Sequence Read Archive (SRA)
- How is the Data Management and Sharing Policy (DMSP) working so far for the NIGMS grantee community?
 - NIGMS-specific DMSP information and FAQs:
<https://nigms.nih.gov/Research/Pages/data-management-and-sharing-plan.aspx>