



Overview of Common NIH Award Mechanisms

FSU College of Nursing Webinar Series
Kate Muessig, February 20, 2024

Learning objectives

- Increase familiarity with a variety of NIH research grant mechanisms and the types of work they could cover.
- Understand differences between PA, RFA, etc. (Making sense of NIH Funding Opportunity Announcements (FOAs)).
- Introduce NIH online resources and strategies for identifying funding opportunities.
- Consider example funding trajectories for growing a line of research.

Disclaimers and Context

- There's lots of other funding opportunities outside of NIH!
- NIH Institutes and Centers I am most familiar with:
 - National Institute of Mental Health (NIMH)
 - National Institute on Minority Health and Health Disparities (NIMHD)
 - National Institute of Allergy and Infectious Diseases (NIAID)
 - Fogarty International Center (FIC)
 - National Institute of Child Health and Human Development (NICHD)



Common NIH Research Grant Programs



Commonly used NIH grant programs

MECHANISM	EXAMPLES
“R series”: Research Grants	R01: Research Project Grant Program R03: Small Grant Program R13: Support for Conferences and Scientific Meetings R21: Exploratory/Developmental Research Grant Award R34: Clinical Trial Planning Grant Program R41/R42: Small Business Technology Transfer (STTR) R43/R44: Small Business Innovation Research (SBIR)
“K series”: Career Development Awards	K99/R00: Pathways to Independence Award K07: Mentored Academic Career Development Award K22: Career Transition Award
“T & F series”: Research Training and Fellowships (Individual & Institutional)	F32: Postdoctoral Fellowships T32: Ruth L. Kirschstein Institutional National Research Service Award T35: Ruth L. Kirschstein NRSA Short-Term Institutional Research Training Grant
“P series”: Program Project / Center Grants	P01: Research Program Project Grant P20: Exploratory Grants P30: Center Core Grants P50: Specialized Center Grant

Main Research grant types

- **R03** – small, developmental awards (2 years, \$50K/yr directs)
“Pilot or feasibility studies, collection of preliminary data, secondary analysis of existing data, small, self-contained research projects, development of new research technology”
- **R21** – larger developmental awards (2 years, \$275K total directs)
“Exploratory and developmental, even high-risk research...to introduce novel scientific ideas, model systems, tools, agents, targets, and technologies that have the potential to substantially advance biomedical research.”
- **R34** – trial planning grant (3 years, ~\$100K - \$450K total direct)
“Designed to permit early peer review of the rationale for the proposed clinical trial and support development of essential elements of a clinical trial.”
- **R01** – large studies, RCTs (3-5 years, no limit – typically \$500K/yr direct)
Most commonly used grant program. Larger projects, generally need preliminary data.

Small Business Research Awards

- **Three-phase structure:**

- Phase 1: Feasibility (6 months – 2 years; < \$295,924 total)
- Phase 2: Research & Development (1 – 3 years; < \$1,972,828 total)
- Phase 3: Commercialization (not NIH-funded)

- **R41/42 – Small Business Technology Transfer**

Intended to stimulate scientific and technological innovation through cooperative research/research and development between small business concerns and research institutions. PI can be with the business OR research organization.

- **R43/44 – Small Business Innovation Research**

Intended to stimulate technological innovation in the private sector by supporting research or research and development for for-profit institutions for ideas that have potential for commercialization. PI of record must be with the small business.

Grant types – some considerations

- R03 & R21: “Shorter” application (6-page Research Strategy) but not necessarily easier to write or get!
 - May still need preliminary data to be competitive (even though this is not an NIH requirement)
 - Not ideal “pathways to independence” on their own due to shorter time frame and smaller funds
- R34 & R01: “Longer” application (12-page Research Strategy) but:
 - Larger budget and longer time period
 - More room for course correction
 - R01 - **more favorable paylines for “new/early stage” investigators**

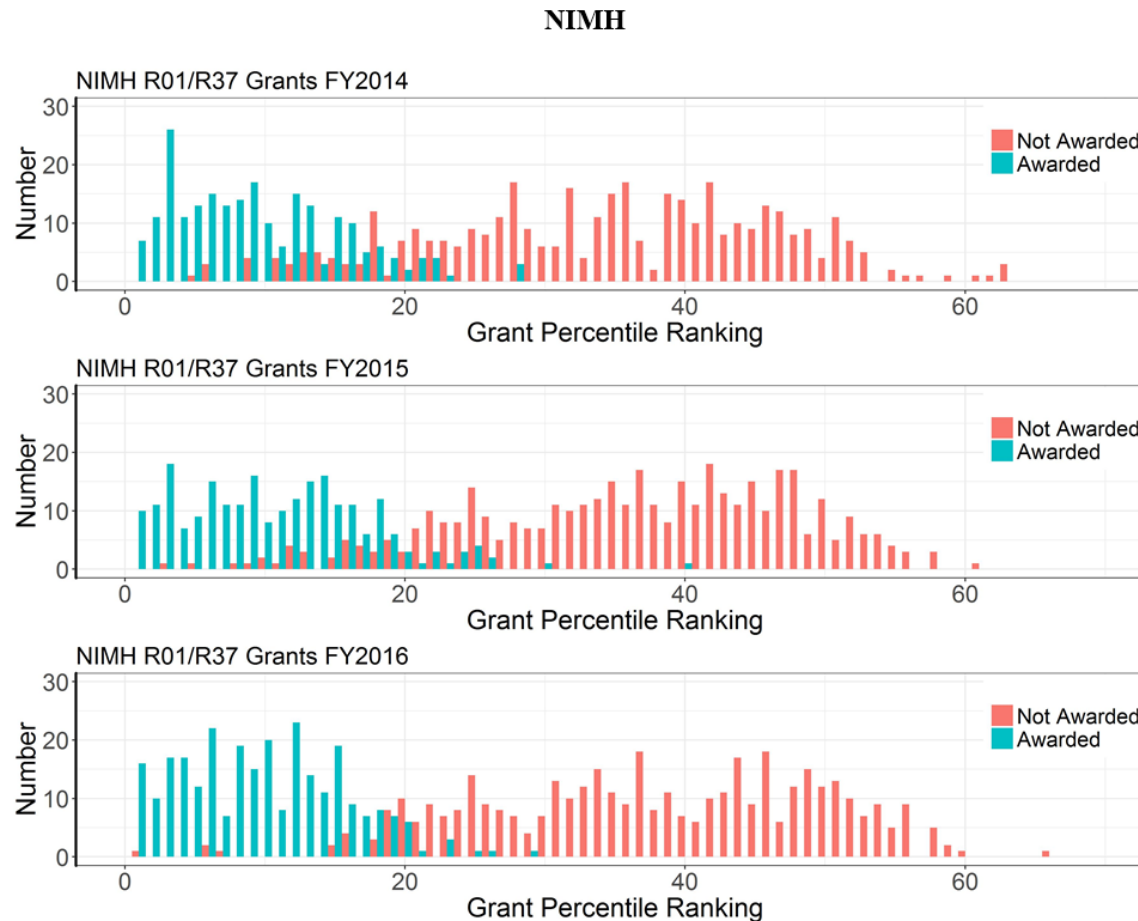


Most things will take twice as long and cost twice as much as I originally think.

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What do you mean by “payline”?

Fiscal Year 2024: “Pending a final budget, NIMH expects to fund many applications up to the 20th percentile and some applications up to the 25th percentile for early stage investigators.”



Grant paylines—based either on overall impact score or percentile—are conservative cutoff points NIH uses for funding applications.

NIH may fund more applications at the end of the fiscal year when there is a clearer budget picture.

Paylines vary considerably among NIH institutes.

Percent of submitted applications funded (success rate) by mechanism

Fiscal Year - 2022

NIH Institute	R01	R21
NCI	12.8%	13.6%
NIAID	14.7%	14.1%
NICHD	16.3%	15.2%
NIDDK	17.4%	15.4%
NINR	17.5%	9.9%
NINDS	17.7%	20.4%
NIDA	18.0%	14.0%
NHLBI	18.2%	13.6%
NIA	19.8%	19.2%
NIMH	21.2%	22.3%
NIBIB	24.2%	15.5%
NIAAA	24.5%	22.0%

Early Stage & New Investigators

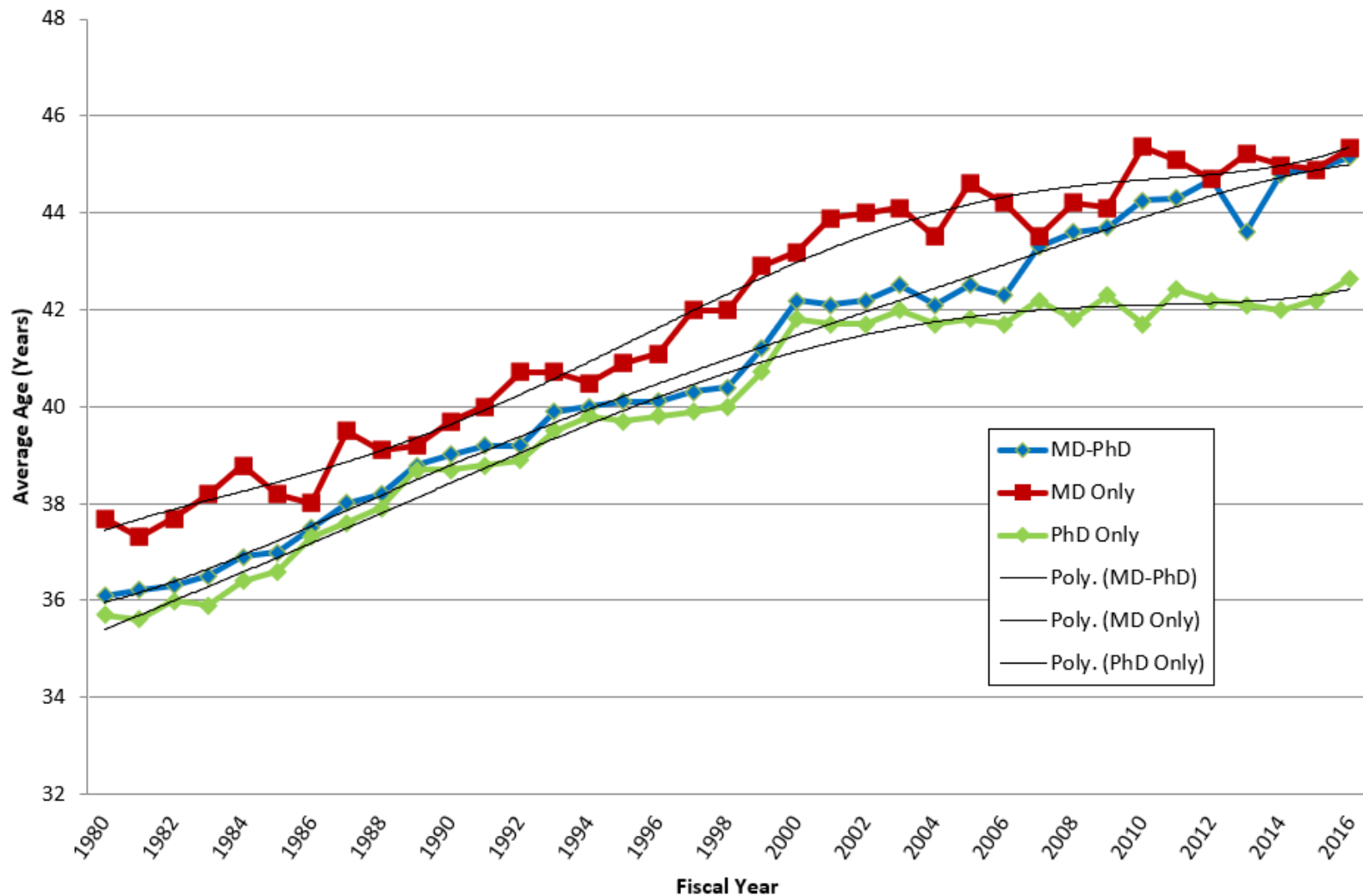
Early Stage Investigator	A Program Director / Principal Investigator (PD/PI) who has completed their terminal research degree or end of post-graduate clinical training, whichever date is later, within the past 10 years and who has not previously competed successfully as PD/PI for a substantial NIH independent research award. See our list of NIH grants that a PD/PI can hold and still be considered an ESI.	R01-equivalent ESI applications with meritorious scores will be prioritized for funding.
New Investigator	A New Investigator (NI) has not previously competed successfully for a substantial research grant from NIH.	NIH Institutes and Centers (ICs) fund New Investigators according to the ICs' programmatic and strategic interests.

<https://grants.nih.gov/policy/early-investigators/index.htm>

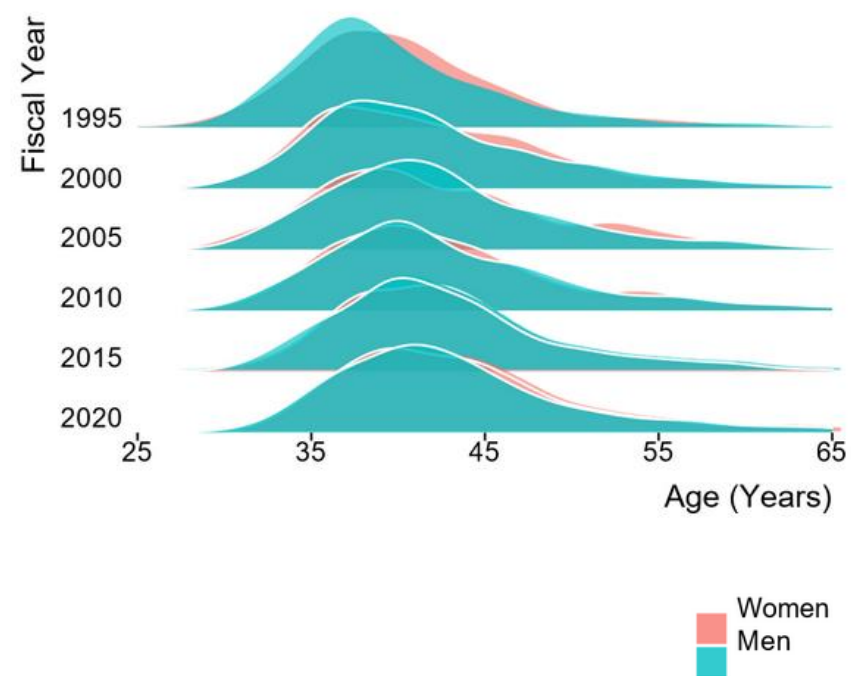
<https://grants.nih.gov/policy/early-investigators/list-smaller-grants.htm>

Average Age and Degree of NIH R01-Equivalent First-Time Awardees* Fiscal Years 1980-2016**

Chart 440-16-1



2020:
Mean: 44 years old
 Median: 42 years old
 No difference between M/W



CSR-reviewed Research Applications (Percentile Based)

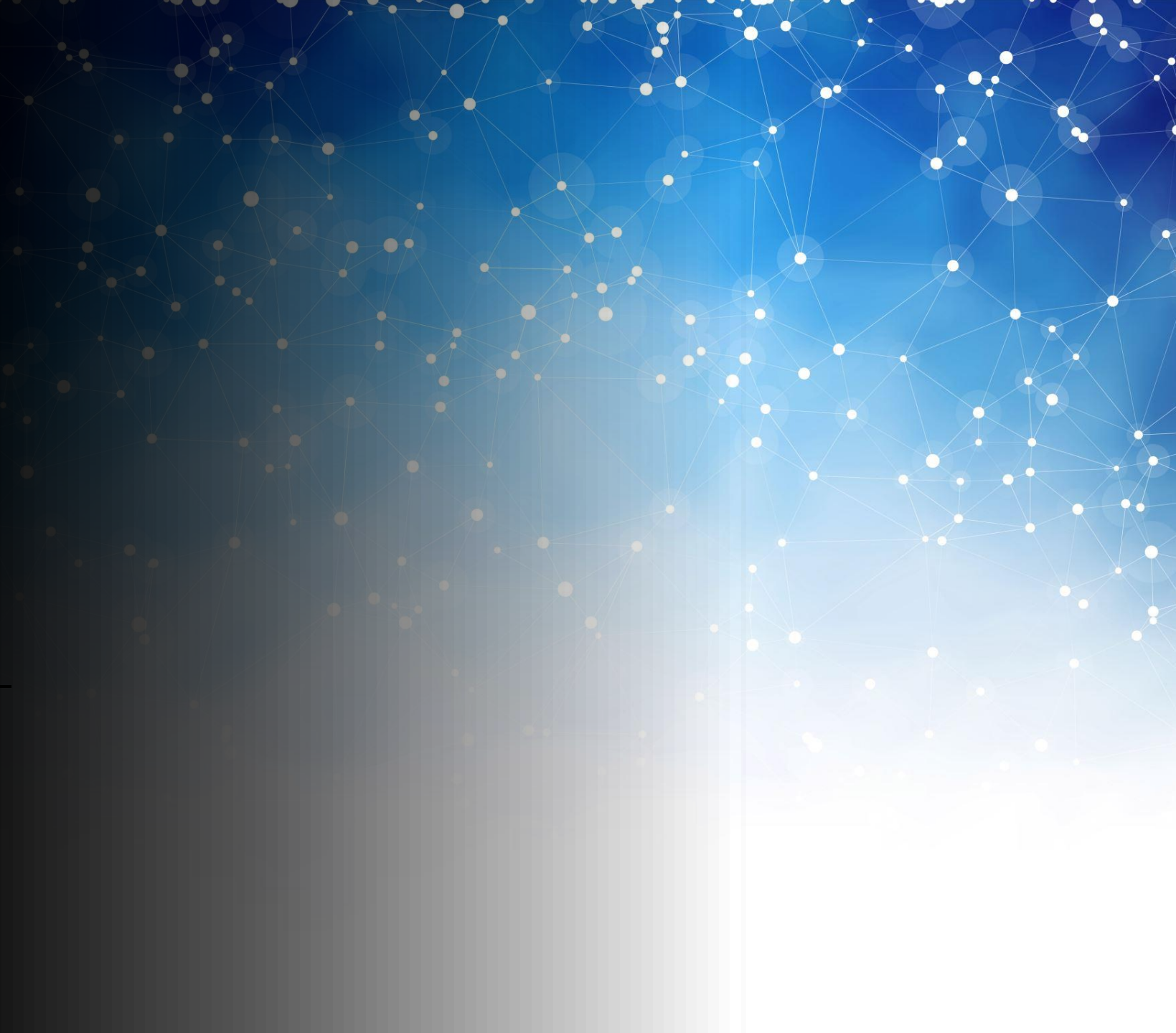
Applications	General payline, < \$500k	General payline, ≥ \$500k	AD/ADRD payline
All (except below)	15%	12%	25%
New Investigator R01s	18%	15%	28%
Early Stage Investigator R01s	20%	17%	30%

The lower the percentile, the better your grant scored compared to all other grants scored by that study section in the past 3 review cycles.

AD/ADRD : Alzheimer's Disease and Alzheimer's Disease Related Dementias



Making sense of NIH Funding Opportunity Announcements



NIH Funding Opportunity Announcements (FOA)

- **UNSOLICITED**, Investigator-Initiated Research
 - **Parent Program Announcements** for common grant mechanisms
 - https://grants.nih.gov/grants/guide/parent_announcements.php
 - Broad funding opportunities
 - Standard submission dates
 - Many Institutes/Centers participate
 - **Majority of proposals that NIH receives and funds**

NIH Funding Opportunity Announcements (FOA)

- **SOLICITED**, (one or more) Institute/Center (IC)-Requested Research opportunities
 - IC-Sponsored **Program Announcements (PA)** – “formal statement about a new or ongoing extramural activity or program.... standing submission dates...reviewed with all other applications received at that time using standard peer review processes.”
 - **PAR** - PA with special receipt, referral, and/or review considerations
 - **PAS** - PA with set-aside funds
 - **Notice of Special Interest (NOSI)** – “highlights a specific topic of interest, such as a specific area of research or program...directs to one or more active FOAs (often Parent Announcements) for submission of applications for the initiative described.”
 - **Requests for Applications (RFA)** – “well-defined scientific area to accomplish specific program objectives....estimated amount of funds set aside...estimated number of awards to be made...application submission date(s)”
 - May have lower “pay line” depending on # applications submitted and # planned to fund



Online resources for identifying funding



Search your Institutes'/Centers' websites

- Familiarize yourself with institute/center missions and funding priorities.
- Sign-up for newsletters, listservs, presentations.



Advancing
health equity
into the future.

NINR's mission is to lead nursing research to solve pressing health challenges and inform practice and policy – optimizing health and advancing health equity into the future.








NINR Strategic Plan Fact Sheet

This fact sheet provides an overview of the National Institute of Nursing Research's (NINR) 2022-2026 strategic plan, which includes NINR's mission, research lenses for investigating health-related questions, guiding principles for prioritizing research, and a research framework for achieving NINR's mission.

Download Fact Sheet

RESEARCH LENSES

Health Equity	Social Determinants of Health	Population and Community Health	Prevention and Health Promotion	Systems and Models of Care
 <p>Reduce and ultimately eliminate the systemic and structural inequities that place some at an unfair, unjust, and avoidable disadvantage in attaining their full health potential.</p>	 <p>Identify effective approaches to improve health and quality of life by addressing the conditions in which people are born, live, learn, work, play, and age.</p>	 <p>Address critical health challenges at a macro level that persistently affect groups of people with shared characteristics.</p>	 <p>Prevent disease and promote health through the continuum of prevention—from primordial to tertiary.</p>	 <p>Address clinical, organizational, and policy challenges through new systems and models of care.</p>

Review Institute/Center Research Concepts

You can expect to see Funding Opportunity Announcements in many of these areas in subsequent years

The screenshot shows the NIH website header with the logo and navigation menu. The main content area features a search bar, a breadcrumb trail, and a list of funding opportunities. The first opportunity is titled '2023 Approved Research Concepts' and includes three sub-sections: 'Research to Understand and Address Health Disparities in Native Hawaiian and Pacific Islander Populations', 'Addressing the Impacts of Health Care System, Health Policy, and Clinician Factors on Disparities in Maternal Mortality and Morbidity', and 'Spirituality and Religiosity as Psychosocial Determinants of Health in Populations Experiencing Health Disparities'. A sidebar on the right provides information about approved research concepts and a link to related content.

NIH National Institute on Minority Health and Health Disparities

About Programs Funding Opportunities News and Events Resources

What can we help you find?

Home > Funding Opportunities > Approved Research Concepts > 2023

NIMHD Funding Opportunities

Approved Research Concepts

NIH Funding Opportunities

2023 Approved Research Concepts

Research to Understand and Address Health Disparities in Native Hawaiian and Pacific Islander Populations

Supports multidisciplinary research to understand the risk and protective factors and challenges, particularly on upstream factors, affecting NHPH health, and to develop and test interventions and prevention strategies.

Addressing the Impacts of Health Care System, Health Policy, and Clinician Factors on Disparities in Maternal Mortality and Morbidity

This initiative will solicit research to examine and address understudied factors and their impact on disparities in maternal mortality and morbidity.

Spirituality and Religiosity as Psychosocial Determinants of Health in Populations Experiencing Health Disparities

Supports multi-level, multi-domain intervention and observational research that addresses and/or investigates the role of spirituality or religiosity on health and well-being among populations experiencing health disparities. This research aims to understand how spirituality and/or religiosity can best be integrated into comprehensive models of health and health care delivery among populations experiencing health disparities.

What is an Approved Research Concept?

Research concepts describe the basic purpose, scope, and objectives of proposed research initiatives and represent an early planning stage for potential NIMHD activities.

The National Advisory Council on Minority Health and Health Disparities (NACMHD) approves research concepts during Advisory Council meetings to help researchers stay abreast of topical areas of interest that are likely to become NOFOs.

Related

[2022 Approved Research Concepts](#)

<https://www.nimhd.nih.gov/funding/approved-concepts/2023/index.html>

Institute/Program Matrix

[RTCD Home](#) > Institute/Program Matrix

	Individual Awards																					
	Individual Fellowships					Career Development Awards													DS*			
	F05	F30	F31	F32	F33	F99/ K00	K01	K02	K05	K07	K08	K12	K18	K22	K23	K24	K25	K26	K99/ R00	R36	D43	D
NCI																						
NEI																						
NHLBI																						
NHGRI																						
NIA																						
NIAAA																						
NIAID																						
NIAMS																						
NIBIB																						
NICHD																						
NIDCD																						
NIDCR																						
NIDDK																						
NIDA																						
NIEHS																						

Clickable map of active Research Training and Career Development funding opportunities grouped by type and Institute

	Individual Fellowships						Career Development Awards										
	F05	F30	F31	F32	F33	F99/ K00	K01	K02	K05	K07	K08	K12	K18	K22	K23	K24	K25
NCI																	
NEI																	
NHLBI																	
NHGRI																	
NIA																	
NIAAA																	
NIAID																	
NIAMS																	
NIBIB																	
NICHD																	
NIDCD																	
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NIEHS																	
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NIMHD																	
NINDS																	
NINR																	
NLM																	
ERIC																	



[About DBRW](#)

[Career Path](#)

[Programs](#)

[Inst](#)

Research Career Development Awards

[RTCD Home](#) > [Programs](#) > [Research Career Development Awards](#) > [Mentored Patient-Oriented Research Career Development Award](#)

K23

Mentored Patient-Oriented Research Career Development Award

Program Purpose

The purpose of this program is to support the career development of individuals with a clinical doctoral degree, who have the potential to develop into productive, clinical investigators, and who have made a commitment to focus their research endeavors on patient-oriented research.



PD/PI

Eligibility

Career level

U.S. citizen or permanent resident, with clinical doctoral degree, and completed clinical training.

[Postdoctorate/Residency](#)
[Early Career](#)



INSTITUTION

Eligibility

U.S. domestic institutions

Search NIH Reporter

Quick Search

Search

Enter just about anything in the RePORTER Quick Search box above (text, PI names, project numbers, fiscal year, agency) or launch the Advanced Search to precisely configure searches using separate search fields.

Advanced Search

Welcome to the NIH RePORTER

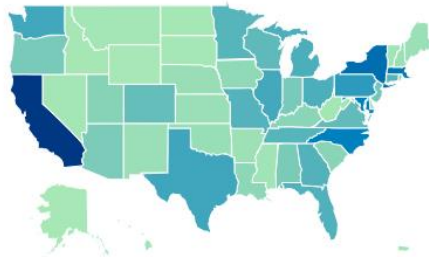
Each award supported by NIH promotes efforts to seek fundamental knowledge about the nature and behavior of living systems and/or the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

Guided Tour

Feedback

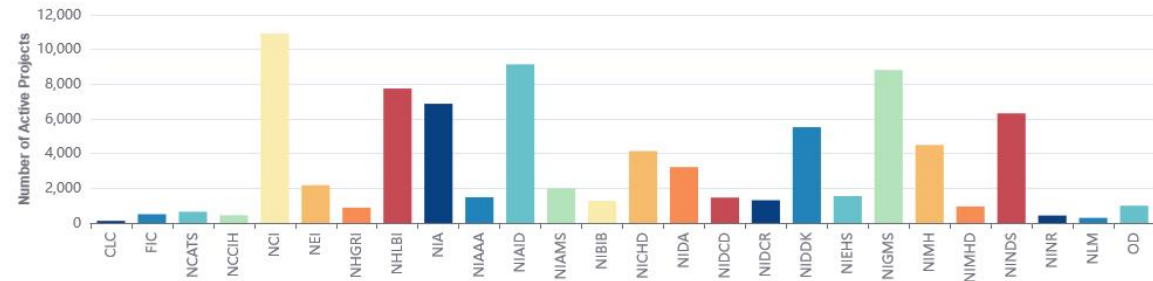
Active Funding by State

Select a state to view projects



Active Projects by Institute/Center

Select a bar to view projects for an Institute/Center



[Advanced Projects Search](#)

[Matchmaker](#)

Search NIH Reporter

NIH RePORT RePORTER FAQs API ExPORTER Sign In

Search Results

3 Projects

Search Criteria Fiscal Year: Active Projects Admin: Yes Agency/Institute/Center: NINR Project Number/Application ID: R34, R21 Text Search: HIV (and) Limit to: Project Title, Project Terms, Project Abstracts [View More Criteria](#)

Projects Publications Patents Clinical Studies News & More

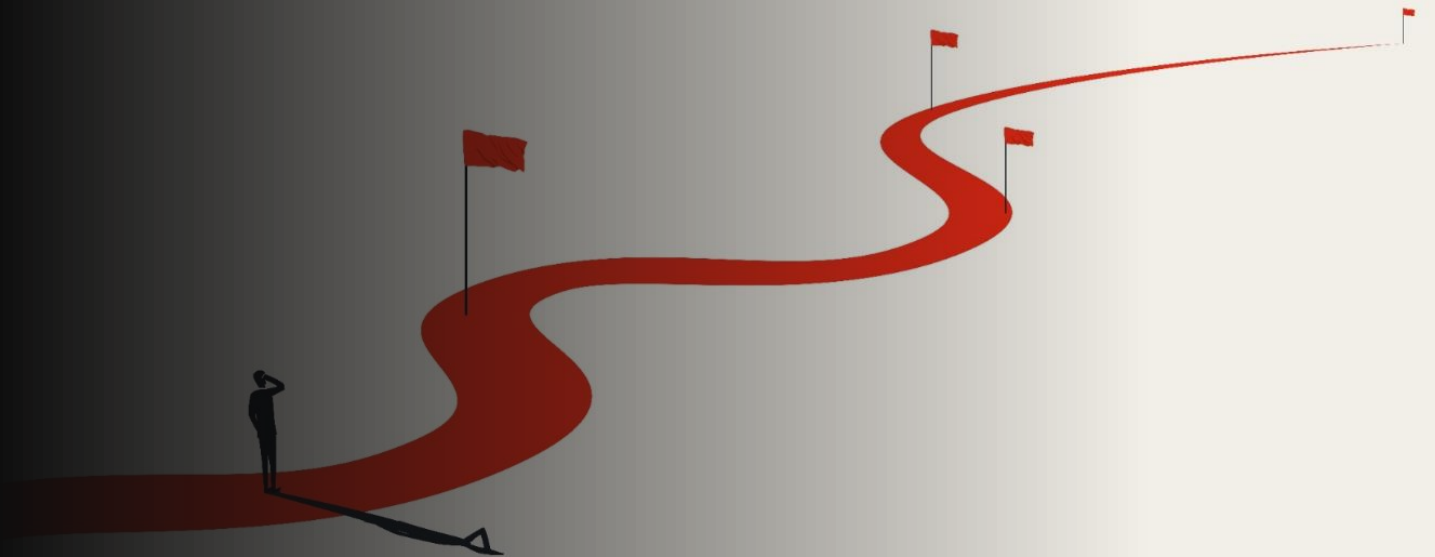
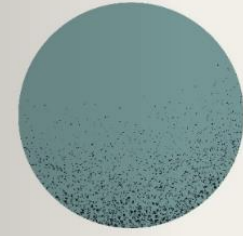
List Charts Map

T	Act	Project	Year	Sub	Principal Investigator(s)/ Project Leader(s)	Organization	Fiscal Year	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects
		Modeling perceptions of social location and decision-making to develop targeted messaging promoting HIV care engagement and ART adherence among women living with HIV in the South									
5		R21NR020164-02			CAIOLA, COURTNEY ELLIS	EAST CAROLINA UNIVERSITY	2022	NINR	NINR	\$230,231	View >
		Development of a model to implement guideline-concordant STI/HIV healthcare and screening for adolescents in the pediatric emergency department									
5		R21NR020168-02			MERCHANT, ROLAND C.	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	2022	NINR	NINR	\$213,199	View >
		Patterns and predictors of racial/ethnic disparities in HIV care continuum in the South									
1		R21NR021079-01A1			YANG, XUEYING	UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA	2023	NINR	NINR	\$398,744	View >

Filters

- > Fiscal Years
- > Org Names
- > Agencies
- > States
- > Countries
- > Principal Investigators

Building a line of research



Building a line of research – example trajectories

- R21 (exploratory) – followed by R34 (intervention development & pilot) – followed by R01 (RCT implementation and evaluation)
- K99/R00 (training/pilot or small RCT) – followed by R01 (adaptation, expansion, RCT)
- Diversity supplement (e.g. on a mentor's R01) – followed by K-series or R-series

Writing the current grant or study with the next grant or study in mind.

What do I need to have at the end of this grant/study to advance the next stage of my research?

Considerations for deciding what to pursue (and when)

- What opportunities are available?
 - I just found an RFA that seems like a perfect fit for my research – but it's due in two months – should I apply? (probably yes)
- What aspects of my CV need to be strengthened to get to my next career stage?
- What is my target balance of teaching and research?
- Should I be a PI a multiple-PI or a Co-Investigator on this grant?
 - What will my contribution be and what will I have the capacity to contribute a year from now?
 - What kinds of mentorship will I need to support my success in this research/roll?
 - What is the right mix for me of leadership and support roles on projects?
- What are the benefits of this opportunity beyond just the funding support?
 - Connection to particular researchers/research teams, opportunities to expand my professional network, participation in a growing area of research?

Additional resources at FSU

FSU | UF-FSU CLINICAL AND TRANSLATIONAL SCIENCE AWARD

UF-FSU CLINICAL AND TRANSLATIONAL SCIENCE AWARD
CTSA

HOME ABOUT THE UF-FSU CTSA SERVICES COMMUNITY ENGAGEMENT PARTICIPATE IN RESEARCH K2R SCHOLAR

HOME / SERVICES / K2RPROGRAM

K2R Scholar Program

Southeast Regional Clinical & Translational Science Conference: Save the Date!

Southeast Regional Clinical & Translational Science Conference: Save the Date! February 28 - March 1, 2024
Callaway Resort and Gardens

SOUTHEAST REGIONAL CLINICAL & TRANSLATIONAL SCIENCE CONFERENCE

Save the Date!

February 28 – March 1, 2024
Callaway Resort and Gardens

Mark your calendar and join us in 2024 as we bring together researchers from across the region to build collaborative relationships and present the best new health-related preclinical, clinical, implementation, and public health research.

Additional information, registration, and the call for abstracts will be announced in the coming months.

Questions? Contact Lauren.James@emory.edu

IMBMC South Carolina Clinical & Translational Research Institute CCTS Georgia CTSA FLORIDA STATE UNIVERSITY OF FLORIDA CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE UNIVERSITY OF FLORIDA CLINICAL & TRANSLATIONAL SCIENCE INSTITUTE

<https://ctsa.research.fsu.edu/services/k2rprogram/>

NIH Loan Repayment Program (LRP)

- For qualifying researchers doing qualified research, NIH will repay up to 25% of your qualifying educational debt each year – up to \$50,000 annually
- “Qualified Research” (≥ 20 hours/week)
 - Clinical research (interacting with patients)
 - Clinical research for individuals from disadvantaged backgrounds (see NIH definition)
 - Health disparities research (as defined by NIMHD & AHRQ)
 - Pediatric research
 - Contraception & infertility research
 - REACH – Research in Emerging Areas Critical to Human Health - **NEW**
- Mentored Research Scientist vs. Independent Researcher
- Research must be supported by domestic, nonprofit research funding
- Educational debt $\geq 20\%$ of your salary at the time of award
- Grant is awarded for a two-year distribution, you may apply for renewal multiple times
- Applicants must be a U.S. citizen, U.S. national, or permanent resident of the U.S. by start date



Thank you!
