

# Navigating Neuroscience Funding at NIH

Ana Ebrahimi, PhD

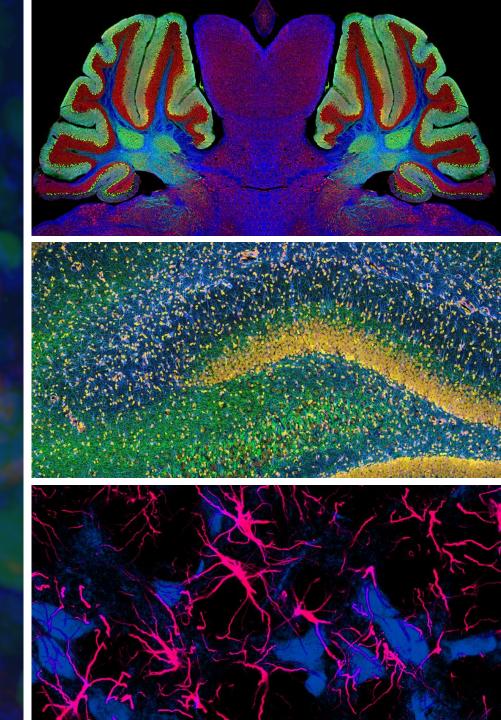
Health Program Specialist

Office of Programs to Enhance the Neuroscience Workforce (OPEN), NINDS, NIH

Frank Shewmaker, PhD

**Program Director** 

Neurodegeneration, Dementia, and Repeat Expansion Disorders Cluster, NINDS, NIH



# Your Speakers Today



Frank Shewmaker, PhD

Program Director

Neurodegeneration, Dementia, and Repeat Expansion Disorders Cluster, NINDS, NIH



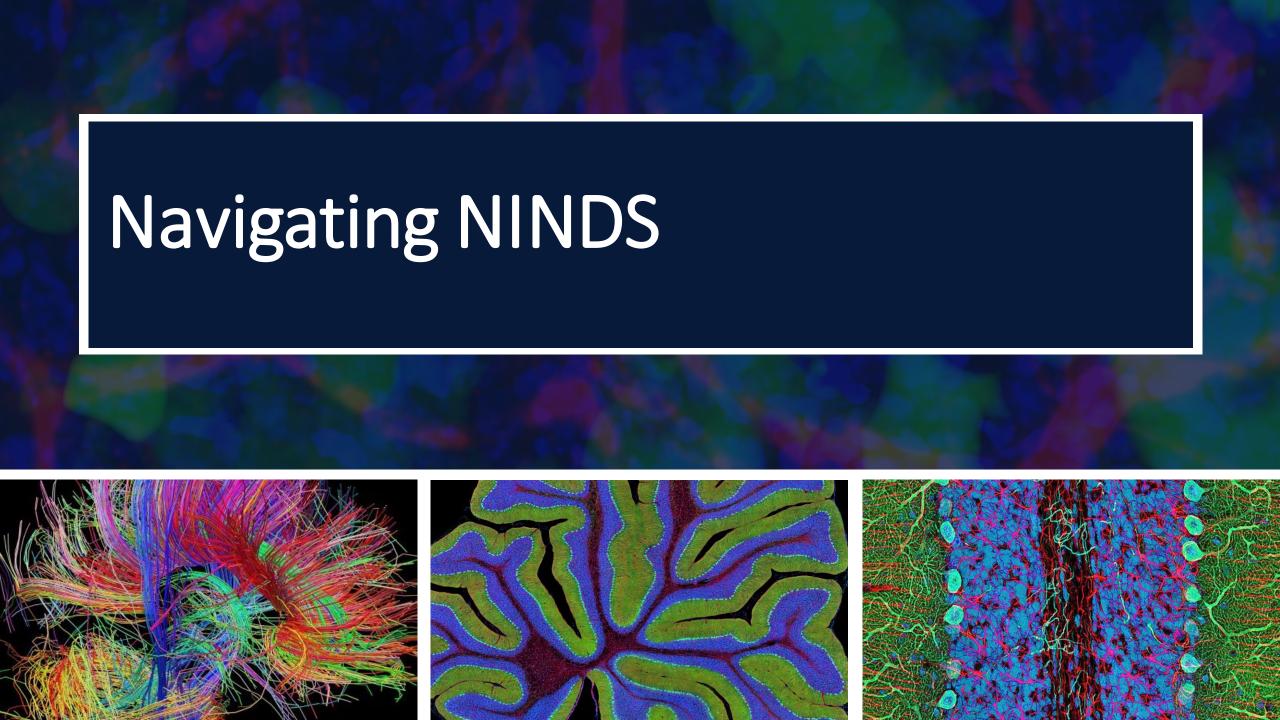
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# Outline

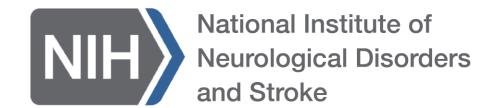
- Navigating NINDS
- Finding Funding Opportunities
- Resources





# NIH & NINDS

- NIH has 27 Institutes and Centers (ICs)
  - Each IC has its own mission
  - Each IC has its own budget
  - Each IC has its own activities
  - Each IC has its own way of doing business
- Before your application goes to a specific IC, it gets reviewed by study sections organized by the Center for Scientific Review (CSR) (in some cases study sections are convened by the ICs instead of CSR)





# NINDS Mission

# The mission of NINDS is to seek fundamental knowledge about the brain and nervous system and to use that knowledge to reduce the burden of neurological disease for all people

- supporting basic, translational, and clinical research on the brain and nervous system
- fostering the training and career development of investigators in basic & clinical neurosciences
- seeking better understanding, diagnosis, treatment, and prevention of neurological disorders

(e.g. of topic areas - NINDS is the primary IC for research on ALS, Parkinson's disease, autism, stroke, epilepsy, as well as hundreds of rare neurological disorders)



# NINDS Mission

These NINDS missions are supported through standard funding mechanisms

- typically, an investigator-initiated research project (e.g. R01, R21, R03)
- training & career development projects (e.g. K or F awards)
- NOFOs of programmatic interest (e.g. specific topics and/or application criteria to meet mission-critical objectives)
- \*NOFO Notice of Funding Opportunity (includes "parent" mechanisms and programmatic opportunities)

# NINDS role in major trans-NIH efforts: BRAIN, HEAL, AD/ADRD

- The BRAIN Initiative (Brain Research Through Advancing Innovative Neurotechnologies) aims to develop and apply innovative technologies to improve how we treat, prevent, and cure disorders of the brain (e.g. determining cell types and circuits)
- The HEAL Initiative (Helping to End Addiction Long-term) trans-IC effort to stem the national opioid public health crisis
- AD/ADRD (Alzheimer's Disease & Alzheimer's Disease-Related Dementias) Prevent and effectively treat Alzheimer's disease and related dementias

# NINDS Base Budget & HEAL, BRAIN and AD/ADRD Budgets

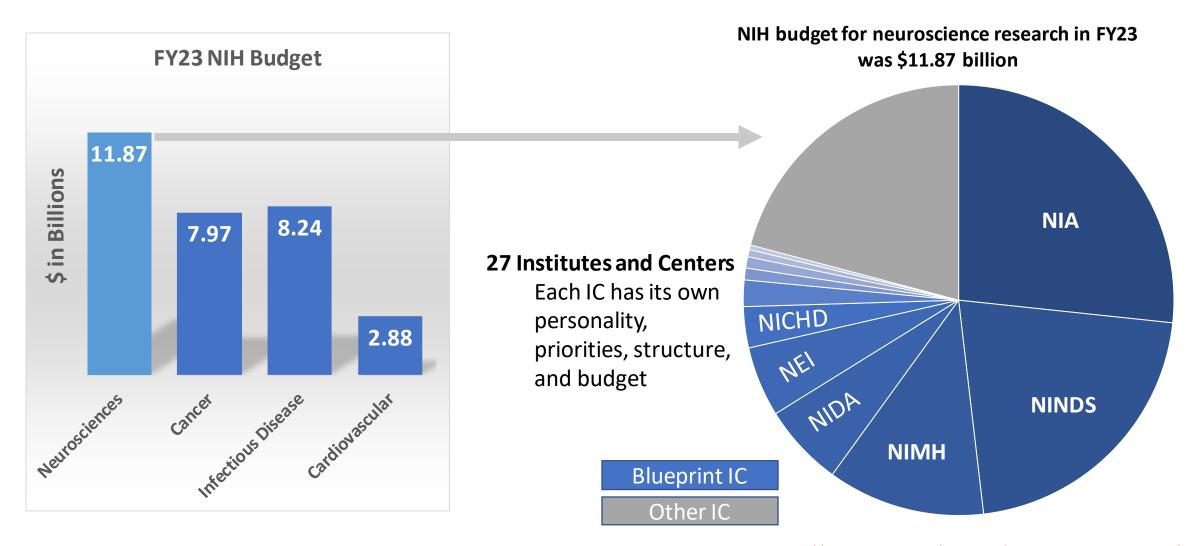
(Dollars in Thousands)

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024  Enacted
NINDS Base	1,979,476	2,014,208	2,082,185	2,167,740	2,167,740
BRAIN	128,890	178,890	182,890	63,890	63,890
HEAL	266,321	270,295	270,295	280,295	285,295
AD/ADRD*				75,000	85,000

 Part of approximately \$300M NINDS oversees on AD/ADRD projects, but most funds are managed by NIA

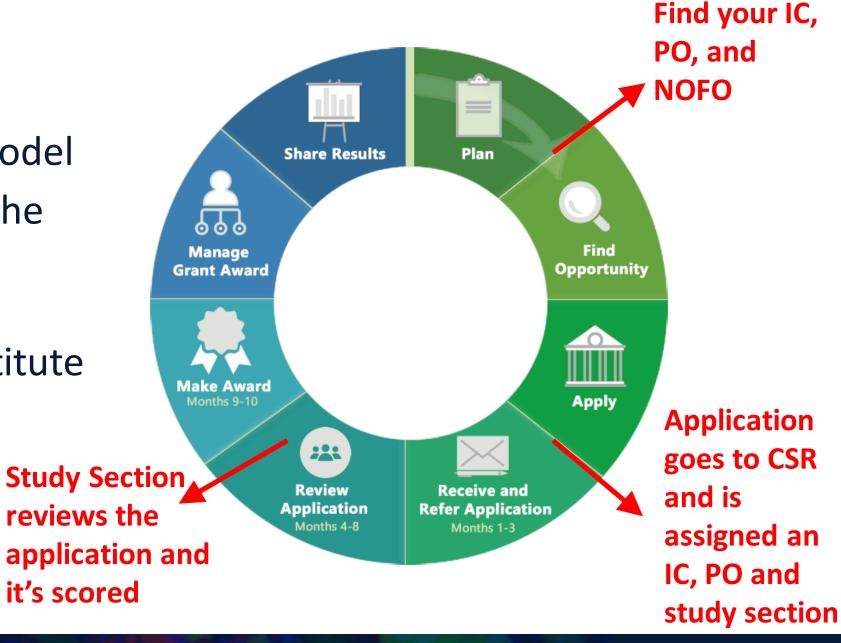


# Neuroscience Spans NIH Institutes and Centers



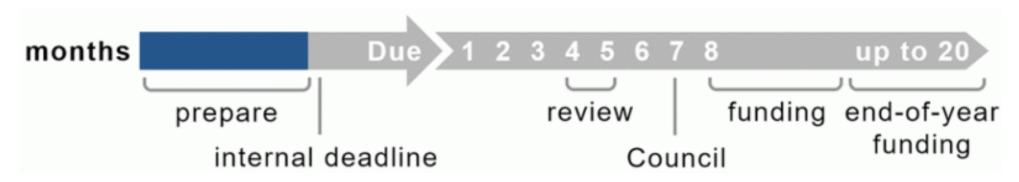
# **Navigating NIH**

- NIH is a federated model
- All institutes follow the same broad steps
- The specifics will be different at each institute



# Navigating NIH – Application & Review Cycles

	Cycle I	Cycle II	Cycle III
Application Due Dates	January 25 - May 7	May 25 - September 7	September 25 - January 7
Scientific Merit Review	June - July	October - November	February - March
Advisory Council Round	August or October *	January	Мау
Earliest Project Start Date	September or December *	April	July





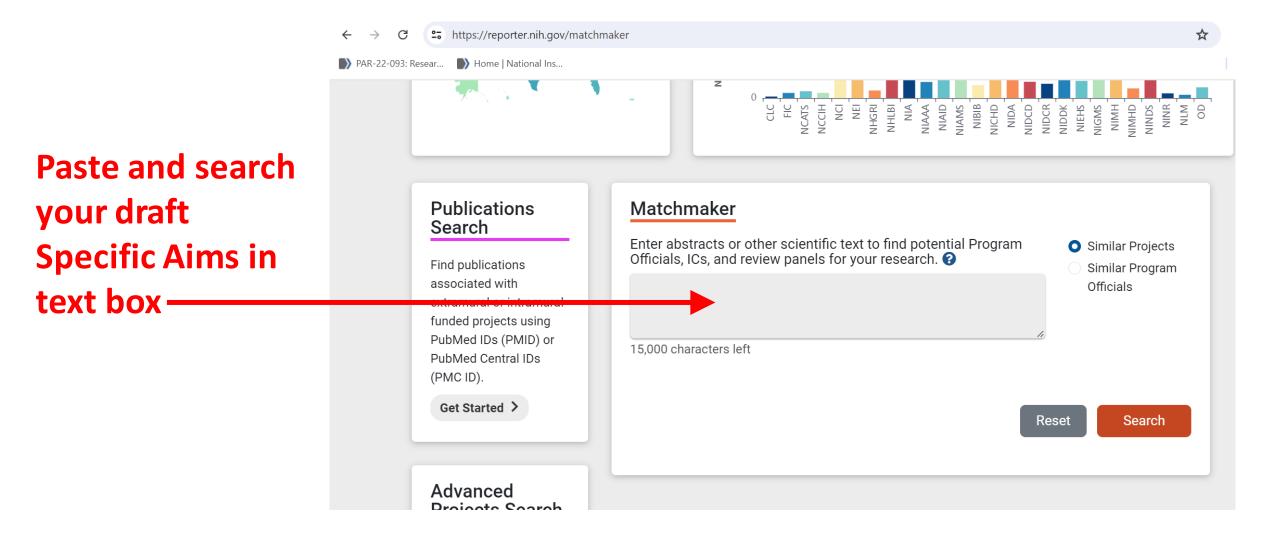
# Find a Program Official and talk to them!



- Have many names: Program Director, Program Officer, Health Scientist Administrator
- Contact relevant POs listed on NOFOs, IC websites, or in NIH RePORTER Matchmaker
  - Most POs prefer to be contacted by email rather than a "cold call"
  - Share your Specific Aims/brief project description in advance
    - Helps PO assess "mission-relevance" and fit with NOFO
    - May facilitate follow-on discussions
  - Initiate contact early in the application process
  - You may talk to several POs before deciding where to submit
  - Follow up after you receive the summary statement

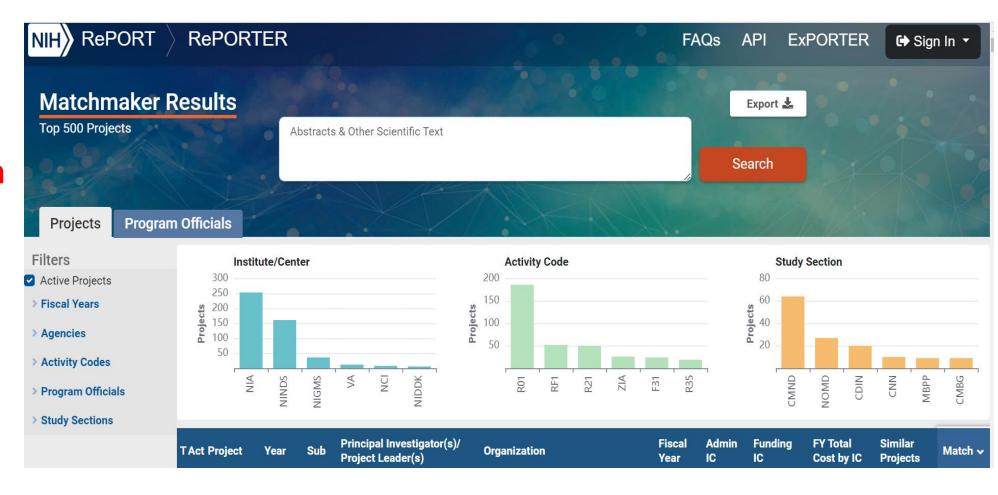


# NIH Reporter – Matchmaker tool is excellent for identifying an appropriate IC



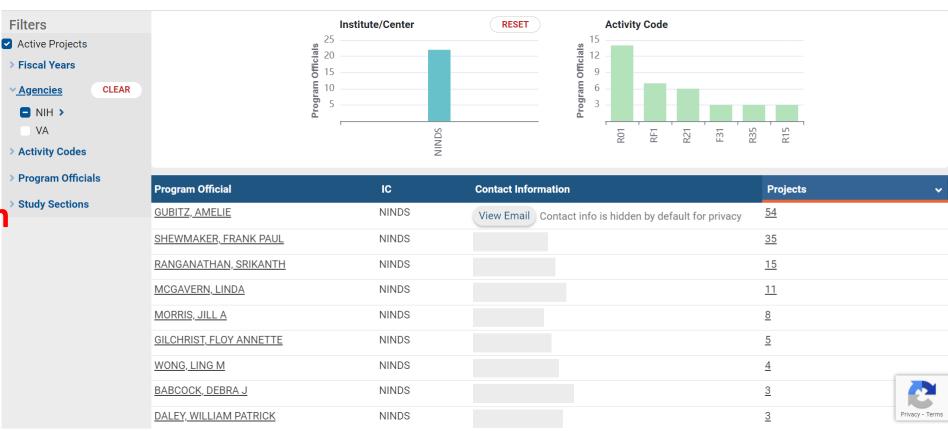
# NIH Reporter – Matchmaker tool is excellent for identifying an appropriate IC

Your project might align with the missions of multiple ICs



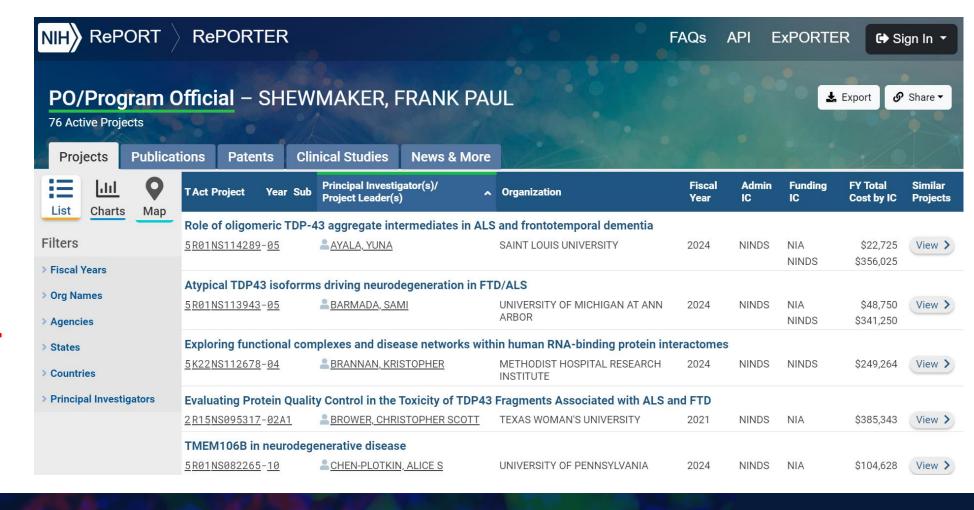
# NIH Reporter – Matchmaker tool is excellent for identifying an appropriate Program Official

Your project
might align with
the portfolios of
multiple Program
Officials

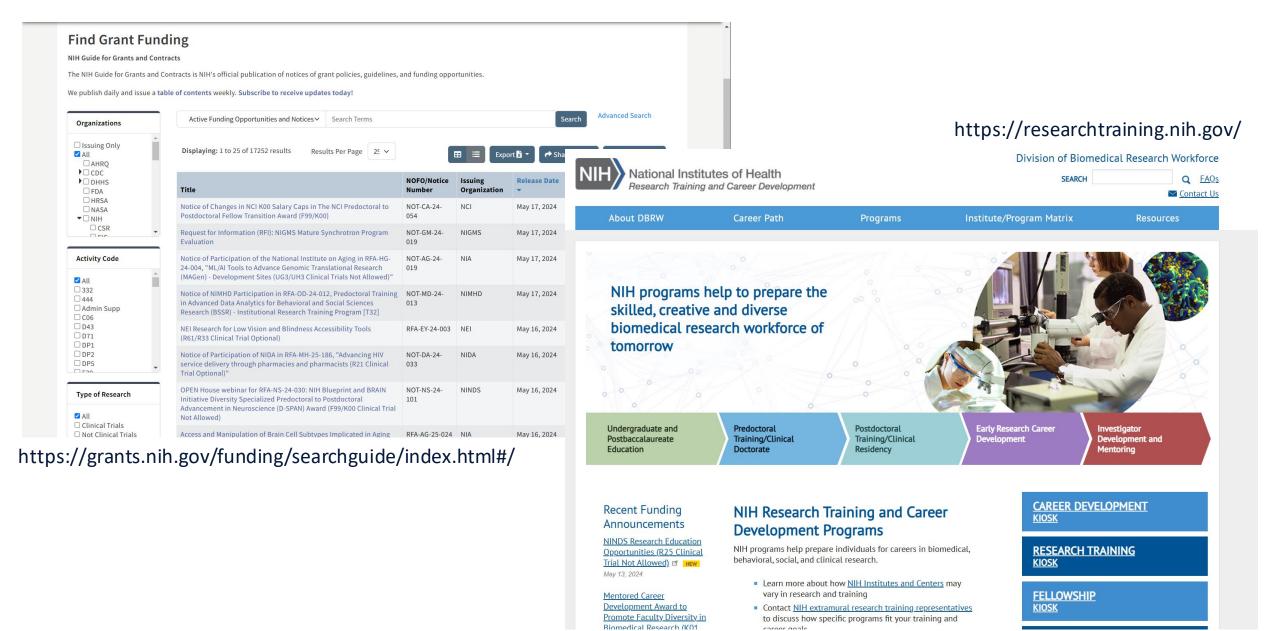


# NIH Reporter – Matchmaker tool is excellent for identifying an appropriate Program Official

Evaluating the portfolios of Program Officials will provide an idea of their expertise on your science



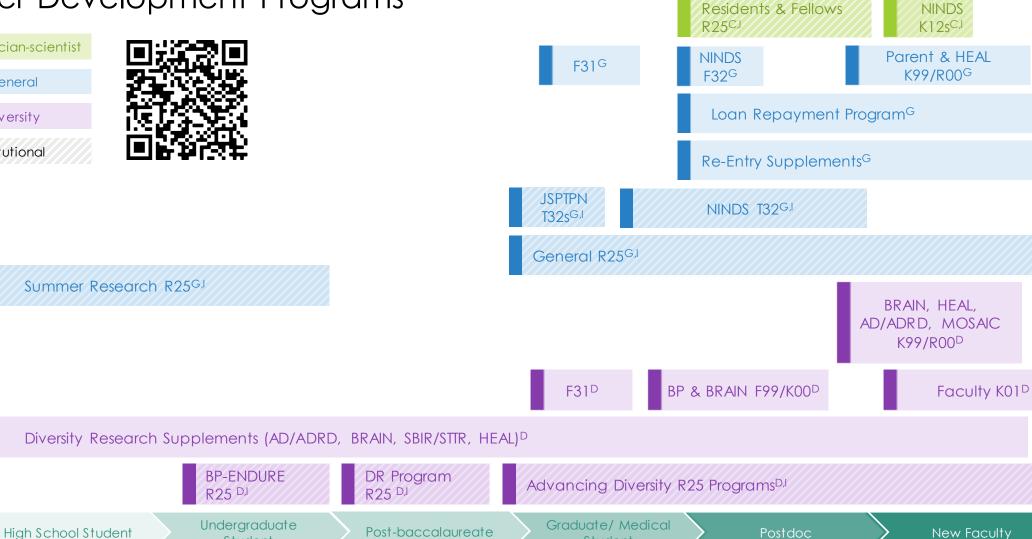
# Finding Funding Opportunities



## NINDS Extramural Training and Career Development Programs

Student

C-Clinician-scientist G-General D-Diversity I-Institutional



Student

F30<sup>C</sup>



K08/K23<sup>C</sup>

K02<sup>C</sup>

# Select Individual Awards

- Research Supplements to Promote Diversity in Health-Related Research (HEAL, AD/ADRD, BRAIN, SBIR/STTR)
  - Additional funds to an active NIH grant (R, P, U, etc.) to support a diverse trainee (high school through junior faculty)
- F30/F31
  - To support training of predoctoral candidates with outstanding mentors.
- Blueprint and BRAIN Initiative D-SPAN F99/K00
  - Provides funds for the last 1-2 years of graduate school and 4 years of postdoc
- Parent F32/NINDS F32
  - To support training of postdoctoral candidates with outstanding mentors. Must apply to NINDS F32 in first 12 months of joining a lab.
- K99/R00 (MOSAIC, BRAIN, AD/ADRD, HEAL Diversity; Parent)
  - Transition award from postdoc to faculty
- Loan Repayment Program
  - Repays up to \$50,000/year for two years of qualified educational debt in return for a commitment to engage in NIH research



# Fellowship review criteria framework will change for applications submitted on or after January 25, 2025

## Learn more:

https://grants.nih.gov/policy/peer/revisions-nih-fellowship-application-review-process/changes-to-fellowship-applications.htm



# Diversity Predoc Fellowship (F31)

The Ruth L. Kirschstein National Research Service Award (NRSA) *Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (F31)* will enable promising underrepresented predoctoral students to obtain individualized, mentored research training from outstanding faculty sponsors while conducting well-defined research projects

- Duration of support:
  - Up to 5 years of aggregate NRSA predoctoral support (up to 6 years for dual degree training, e.g., MD/PhD), including any combination of support from institutional training grants (T32) and an individual fellowship award
- Award budget:
  - Stipend
  - Tuition and fees
  - Institutional allowance (health insurance, research supplies, equipment, books, and travel to scientific meetings)



# NIH Blueprint and BRAIN Initiative Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience Award (F99/K00)

# 1-2 Years 4 Years F99 K00 Graduate Student PhD Defense



**Next Due Date: October 8, 2024** 

#### PARTICIPATING INSTITUTES

NEI
NICHD
NIMH
NIDCR
NINDS
NIAAA
NIDA
NINR
NIBIB
NIEHS
NCCIH

**RFA-NS-24-030** 

#### INTENDED FOR



PhD students with 1-2 years left in a research doctoral degree program;



From diverse backgrounds, including:

- Individuals from nationally underrepresented racial and ethnic groups (African Americans, Hispanic/Latinx, American Indians, Alaska Natives, Native Hawaiians, and other Pacific Islanders),
- Individuals with disabilities, and
- Individuals from disadvantaged backgrounds (NOT-OD-20-031);



Performing neuroscience research within the BRAIN Initiative or Blueprint missions;



At a U.S. domestic institution; and are



U.S. citizens or permanent residents by time of award





# D-SPAN F99/K00 OPEN House July 30, 2024 | 1 - 2:30 PM ET

For graduate students & advisors to ask questions of NIH Program Staff before applying for the NIH Blueprint and BRAIN Initiative Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) Award (RFA-NS-24-030)

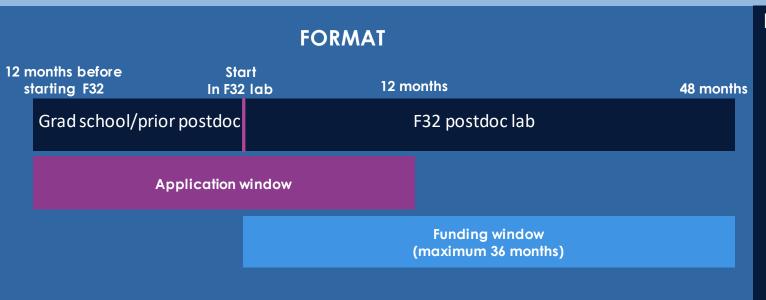
Zoom registration: https://bit.ly/DSPAN\_OPEN\_House24

# WEARE

OPEN

PLEASE COME IN-

## NINDS Postdoctoral NRSA Fellowship (F32) – PAR-21-032



Next Due Date: October 10, 2024

Contact: Michael Tennekoon Michael.tennekoon@nih.gov



#### INTENDED FOR



Postdoctoral Fellows that are early in their training;

- Can apply before joining the postdoc lab you will be doing the F32 project in
- Preliminary data are <u>NOT</u> required!
- Not intended to continue training in same research environment
- Encourage creative, bold, innovative ideas that are an intellectual collaboration between the individual and their mentor
- Do not wait to apply!



Performing neuroscience research within the NINDS mission (please send specific aims to Michael Tennekoon to confirm)

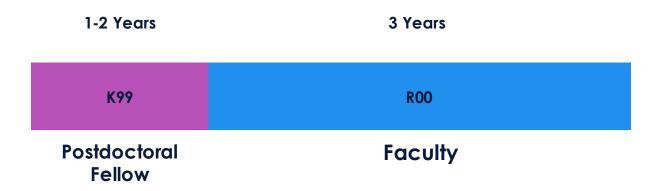


U.S. citizens or permanent residents by time of award



At a U.S. domestic institution or; Foreign institution – however, it must be justified as to why this work cannot be done at a US. Domestic institution

# K99/R00 Transition Award



- K99/R00 awards provide up to 5 years of support in two phases
- 4 year limit of postdoctoral research experience (except BRAIN K99, which is 5 years).
  - Eligibility extensions are available in some circumstances

# K99/R00 – Many Options

- Parent NOFO (NINDS-mission)
- Diversity
  - MOSAIC (NINDS-mission)
  - BRAIN Initiative (circuits, tools and technology)
  - HEAL Initiative (pain)
  - AD/ADRD (Alzheimer's and related dementias)
- Reach out before you apply to understand program relevance!

# KO1 - NINDS Faculty Development Award to Promote Diversity

• For support of diverse faculty scientists committed to research, in need of both mentored research training and additional experience

# Eligibility

- Must have a tenure-track or equivalent position by time of award
- In the first 3 years of a faculty position
- Underrepresented background; US citizen or permanent resident

## Timing

- Up to 5 years of support, last two years contingent upon sufficient progress
- Additional Notes
  - \$95,000 salary, \$100,000 research costs, plus fringe and indirects



## NINDS Extramural Training and Career Development Programs

C-Clinician-scientist G-General D-Diversity I-Institutional



**BP-ENDURE** 

Undergraduate

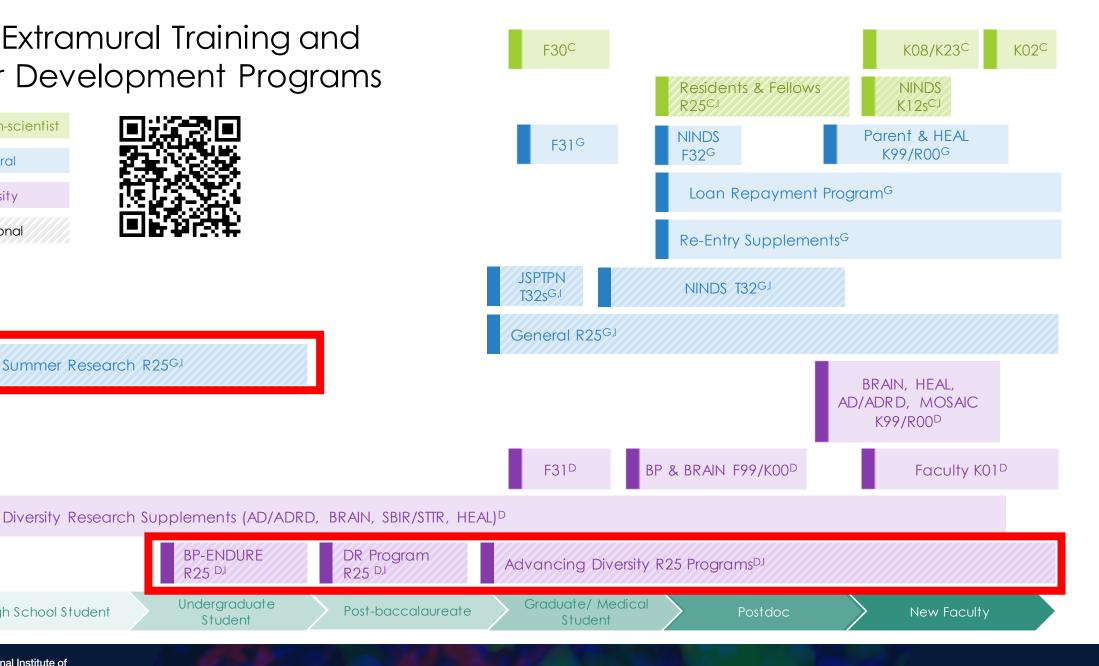
Student

R25 D,I

DR Program

R25 D,I





High School Student

# R25 Programs

NINDS Summer R25 Program	To provide high quality research experience for high school and college students or high school teachers during the summer academic break.	
Doctoral Readiness Program	To provide high quality research experiences for a diverse cadre of postbaccalaureates who have not had access to substantive research opportunities (No active NOFO)	
Blueprint ENDURE R25 Program	ENDURE provides undergraduate research training so that diverse trainees are prepared to enter and successfully complete neuroscience Ph.D. programs.	
NINDS Diversity R25 Programs	Foster the development of neuroscience researchers from diverse backgrounds through innovative mentoring and professional development activities. Graduate through junior faculty	



NOT-NS-23-111 - Interest in receiving grant applications focused on advancing the careers of a diverse translational research workforce

# NIH Neuroscience Development for Advancing the Careers of a Diverse Research Workforce (R25)

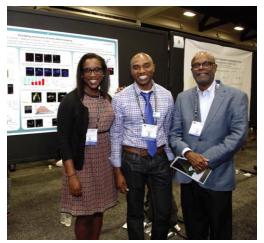
- Foster the development of neuroscience researchers from diverse backgrounds, including from underrepresented groups across career stages.
- Post-bac to junior faculty
- Local and national



# Neuroscience Scholars Program at the Society for Neuroscience (SfN)

- NINDS investment and SfN partnership has supported more than 550 diverse trainees
  - A 2-year training program for underrepresented graduate students and postdoctoral researchers
  - Travel awards, mentoring, and professional development









# American Academy of Neurology (AAN) TRANSCENDS

 Trains promising early-career neurologists to conduct high-quality neurologic research and achieve a successful academic career.



<u>Diversity R01</u> - PAR-22-181	<u>ReWARD R01</u> - PAR-23-122	
To enhance the diversity of R01-funded investigators	To support the research of scientists who are making a significant contribution to Diversity, Equity, Inclusion, and Accessibility (DEIA)	
New Investigators (including Early Stage Investigators) or At Risk Investigators from diverse backgrounds, including those from groups underrepresented in the health-related sciences (e.g., NOT-OD-20-031, NIH's Interest in Diversity)	Has no NIH Research Project Grant (RPG) funding at time of award and is making significant, sustained, and impactful, contributions to DEIA	
Research in areas related to the programmatic interests of NINDS	Research in areas related to the programmatic interests of NINDS and ongoing DEIA activities focused on enhancing diversity in the US biomedical research enterprise	
NINDS; NIDA; NIMH; NINR; NIAAA; NHGRI; NIBIB; NCCIH; NEI; NIA	NIGMS; NEI; NHGRI; NIAAA; NIAMS; NIBIB; NIDCD NIDCR; NIDA; NIMH; NINDS; NINR; NIMHD; NLM; NCCIH; OD; OBSSR; ORWH; NIEHS; NIH BRAIN Initiative	
	To enhance the diversity of R01-funded investigators  New Investigators (including Early Stage Investigators) or At Risk Investigators from diverse backgrounds, including those from groups underrepresented in the health-related sciences (e.g., NOT-OD-20-031, NIH's Interest in Diversity)  Research in areas related to the programmatic interests of NINDS  NINDS; NIDA; NIMH; NINR; NIAAA; NHGRI;	

<sup>•</sup> **New Investigator, including ESI:** has not competed successfully for substantial, independent funding from NIH.

At-Risk Investigator: has had prior support as a PI on a substantial independent research award and, unless successful in securing a substantial research grant award in the current fiscal year, will have no substantial research grant funding in the following fiscal year.





# Many Resources Available

## **Training & Career Development**



#### Choose an Award by Career Stage & Eligibility



High School, Undergraduate.

Predoctoral

Fellows











Institutional

Baccalaureate

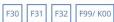
#### Choose an Award by Program Type

#### Individual Fellowships









Research training opportunities for trainees at the graduate and postdoctoral levels.

#### Institutional Grants







Research training opportunities on an institutional level to support multiple scientists and clinician-researchers at all levels of training.

#### Career Development **Awards**









Research training opportunities for scientists and clinical-researchers at the postdoctoral and early career faculty levels.

#### Other Training-Related **Programs**



These programs have unique elements including specific institutional eligibility, or supplementation of an existing NINDS award.

# Virtual NIH Grants Conference & PreCon Events

We hope you enjoyed the 2022-2023 conference season!

RESOURCES AND FUTURE EVENT INFORMATION:

All 2-day conference and precon event resources from the 2022-2023 season are now available!

- PowerPoints
- Videos
- Transcripts

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## **BUILDING UP THE NERVE**

A podcast from the National Institute of Neurological Disorders and Stroke, part of the National Institutes of Health

WITH HOSTS

Ullrich, PhD





Marquerite Matthews, PhD

The Life Cycle of an NINDS Grant

We discuss the NIH grant process from application to award with NINDS staff.

**Building a Grant Application** 

We discuss the components of fellowship & career award applications with awardees.

Mentoring

We discuss strengthening your mentoring relationships with trainees and faculty.

SEASON

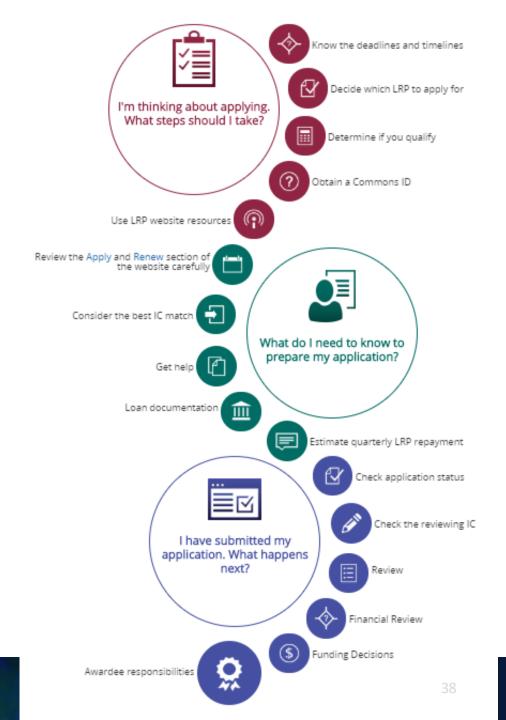
**Demystifying the Hidden Curriculum** 

We discuss the unwritten rules of scientific training and careers with scientists.



# Loan Repayment Program

- To recruit and retain highly qualified health professionals into biomedical research careers
- Eligibility
  - US citizen or permanent resident
  - 20% debt-to-income ratio
  - Clinical, pediatric, health disparities, contraception and infertility research, clinical research for individuals from disadvantaged backgrounds, or research in emerging areas critical to human health
- Timing
  - Repays up to \$50,000/year for two years of qualified educational debt in return for a commitment to engage in NIH missionrelevant research



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Research Training and Career Development

Extramural Diversity &

NIH Funding Strategies

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## http://grants.nih.gov/grants/oer.htm

HOME

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#### **ABOUT GRANTS**

Navigate the NIH grants process.

- · Grants Process Overview
- Get Started
- · How to Apply
- · Application Referral and Review
- · Pre-Award and Post-Award Processes
- Forms Library

#### POLICY & COMPLIANCE

Learn about obligations of your grant award.

- NIH Grants Policy Statement
- · Notices of Policy Changes
- · Compliance and Oversight
- Select Policy Topics

#### INFORMATION FOR...

Find key resources just for you.

- Researchers
- · Research Administrators
- Reviewers
- Small Businesses
- Foreign Applicants
- · Media and the Public



# **NINDS** Resources

- Archived webinars:
  - F99/K00
  - K01
  - K22
  - BRAIN K99/R00
- Tip sheets:
  - K01
  - K22
  - Career Development Plan

### Find Training Grants by Eligibility







Postdoctoral Fellows Fellows









#### **Find Training Grants by Mechanism**

#### **Individual Fellowships**



Research training opportunities for trainees at the graduate and postdoctoral levels

#### **Institutional Grants**



Research training opportunities on an institutional level to support multiple scientists and clinician-researchers at all levels of training

#### **Career Development Awards**



**\** 

Faculty

Research training opportunities for scientists and clinicalresearchers at the postdoctoral and early career faculty

#### **Other Training-Related Programs**



These programs have unique elements including specific institutional eligibility, or supplementation of an existing NINDS award.

https://www.ninds.nih.gov/ Funding/Training-Career-Development

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http://go.usa.gov/xkpN6



## **X/TWITTER**

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## **WEBSITE**

ninds.nih.gov



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NINDSDiversityTraining @mail.nih.gov

