

# NIA Training and Career Development Opportunities

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NIA Training Officer  
4<sup>th</sup> Annual ADAR Summit



National Institute  
on Aging

# NIA Training Learning Objectives

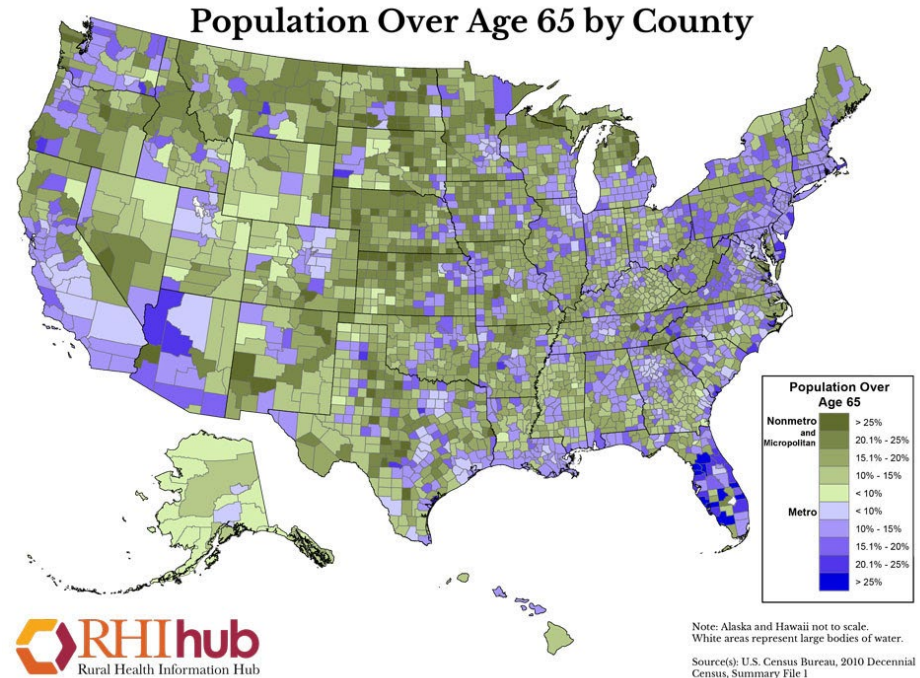
- Raise awareness of:
  - NIA-sponsored Training Opportunities
  - Career Pathways in Aging Research
  - NIA as a Resource and Community

# Outline

- Introduction to NIA
- Overview of NIA Training and Career Development Programs
- How NIH/NIA can help you become a Research Scientist
- How NIH/NIA can help you become a Physician-Scientist
- How NIH/NIA can help you become a Dentist-Scientist
- Useful Resources
- Q&A

# The U.S. Population is Aging

- Today, 46 million adults living in the U.S. are 65 or older.
- By 2050, the number of older adults is expected to grow to 90 million.
- Between 2020 to 2030, the number of older adults is expected to increase by 18 million.
- By 2030, 1 in 5 Americans is projected to be 65 or older.



<https://www.ruralhealthinfo.org/rural-maps/mapfiles/population-over-age-65-county.jpg>

# The National Institute on Aging (NIA)

- NIA leads broad a scientific effort to understand the nature of aging and to extend the healthy, active years of life.
- Established in 1974.
- The primary federal agency for supporting and conducting Alzheimer's disease research.
- Total Budget: \$3.899 billion for FY 2021.



# NIA's Mission

- Support and conduct genetic, biological, clinical, behavioral, social, and economic research on aging.
- Foster the development of **research and scientists** (e.g., research scientists, clinician-scientists, public health scientists, etc.) in aging.
- Provide research resources.
- Disseminate information about aging and advances in research to the public, health care professionals, and the scientific community, among a variety of audiences.

# NIA Research Divisions, Offices, and Programs

## Office of Special Populations

Promotes research on differences in life expectancy among populations and that identifies factors that lead to disparate health outcomes in older persons.



## Division of Aging Biology

Molecular, cellular, and genetic research on the mechanisms of aging as well as resource facilities for aging research.



## Division of Social and Behavioral Research

Social, behavioral, psychological, and economic research on the processes of aging at both the individual and societal level.



## Division of Geriatrics and Clinical Gerontology

Clinical and translational research on health and disease in the aged and over the human life span.



## Division of Neuroscience

Neural and behavioral processes associated with the aging brain. Alzheimer's disease and related dementias are one of the program's highest priorities.



## Office of Small Business Programs

Manages the largest source of early-stage non-dilutive funding for healthy aging innovations.



## Intramural Research Program

Multidisciplinary research in 10 scientific laboratories and specialized branches for clinical research in Baltimore and Bethesda.



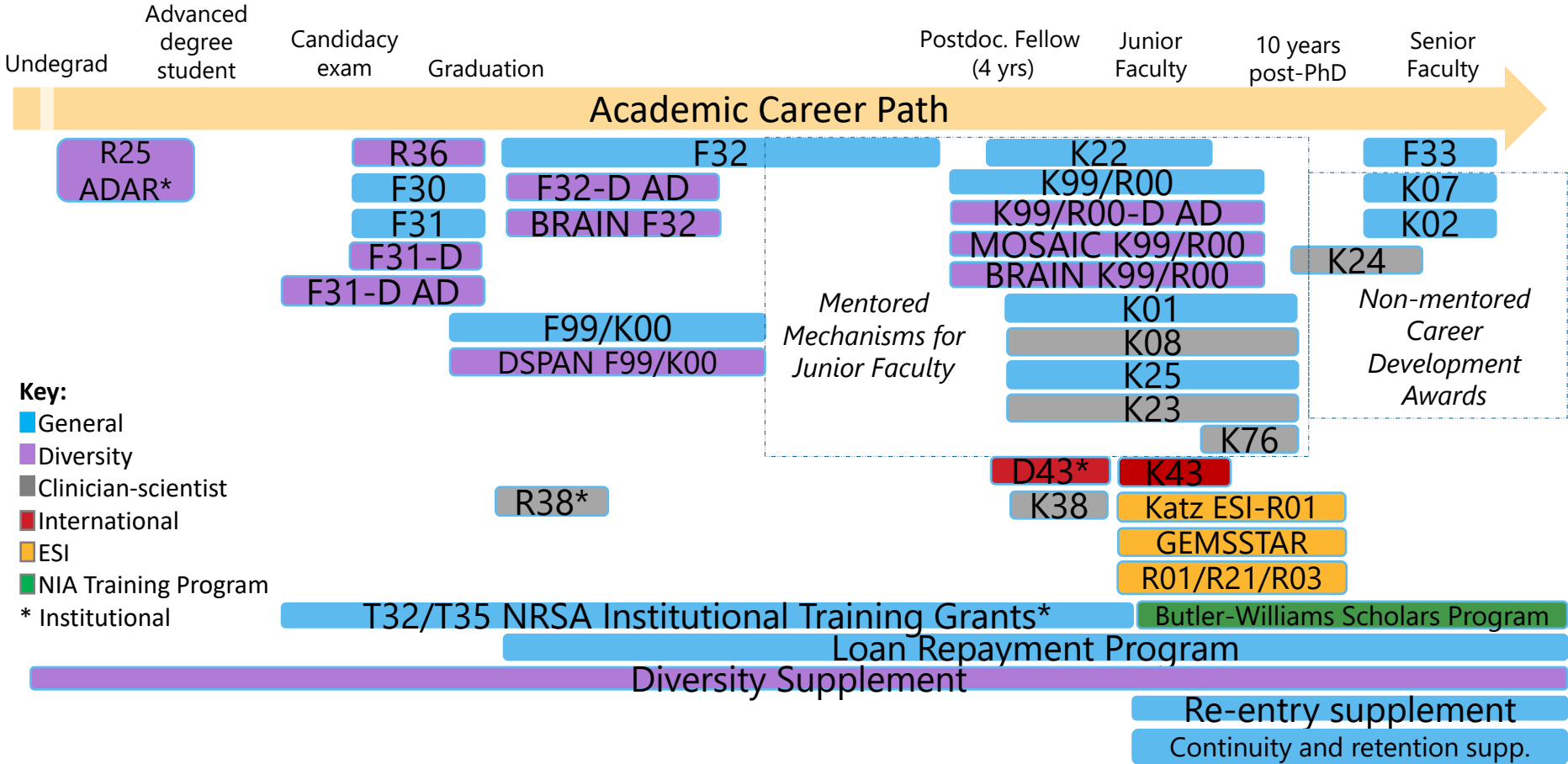


## NIA Priority

*Train the Next Generation of Researchers in the field of Aging*



# Overview of NIA Training and Career Development Programs



# How NIH and NIA Can Help you Become a Research Scientist

## NIA Institutional Awards

R25 ADAR\*

### College Explore Research



- Summer internship at NIH
- Summer research [NIH-R25](#)
- Diversity related programs in science
- Postbaccalaureate program [NIH PREP](#), [NIH IRTA](#)

Interested in career with research

Career with

PhD

### Graduate School Engage in Research



#### Explore Research

- Summer research [NIH-T35](#)
- Consider careers [NIH BEST](#)
  - Transition MS to PhD

#### Complete a PhD

- Predoctoral training programs [NIH-T32](#)
- Graduate fellowship [NIH-F30](#), [NIH-F31](#)
- Graduate partnership program [NIH GPP](#)

## NIA Individual Awards

F31

F31-D

F31-D AD

R36

T32/T35\*

F99/K00

DSPAN F99/K00

Regulatory  
Science

Science  
Policy

Science  
Communications

Science Administration  
& Management

Diversity Supplement

# How NIH and NIA Can Help you Become a Research Scientist

## NIA Institutional Awards

T32\*

## Postdoctorate Research

Build Research



- Postdoctoral training program [NIH-T32](#)
- Individual fellowship [NIH-F32](#)
- Career development program [NIH-K99/R00](#)
- Research training career development [NIH-IRACDA](#)
- Loan repayment program [NIH-LRP](#)

## NIA Individual Awards

F32

F32-D AD

BRAIN F32

K22

K99/R00

K99/R00-D AD

MOSAIC K99/R00

BRAIN K99/R00

K01

K25

LRP

Butler-Williams  
Scholars Program

  
Biotechnology/Pharmaceuticals  
SBIR/STTR

## A Career as a Research Scientist

Conduct research on biomedical mechanisms, diagnosis and therapy, population and outcome medicine, health policy or health services

Work at Academic Health Centers, Hospitals, Federal laboratories, or Biotech/Pharmaceutical industry



- Collaborate with a team of researchers [NIH-U01](#), [R24](#)
- Independent research projects grants [NIH-R01](#), [R21](#)

  
Research & Teaching  
Early, New Investigator

\* *Supplement to Enhance Diversity is applicable at all career levels*



# How NIH and NIA Can Help you Become a **Physician-Scientist**

Career with

**MD/PhD** >>>

Definitely want research  
as a major part of a medical career

NIA  
Institutional Awards

R25 ADAR\*

**College**  
Explore Research



- Summer research [NIH-R25](#)
- One-two years after college [NIH-IRTA](#)

Career with

<<< **MD**

Interested in health and disease  
and a career with research

NIA  
Individual Awards

T32/T35\*

**Complete a PhD**

- Integrated MD/PhD [NIH-T32 MSTP](#)
- Graduate fellowship [NIH-F30](#), [NIH-F31](#)

**Medical School**  
Engage in Research



**Explore research**

- Summer research [NIH-T35](#)
- Full year research [NIH-TL1](#)
- Full year research [NIH-MSRP](#)

F30

F31

# How NIH and NIA Can Help you Become a **Physician-Scientist**

## NIA Institutional Awards

R38\*

### Residency & Fellowship

Build research and clinical skills



- Research Residency & Fellowship
- Opportunities in NIH Clinical Center
- Pursue a Master's Program
- Subspecialty research NIH-T32
- Loan Repayment Award NIH-LRP

### Early Faculty

Combine clinical care and research



- Clinical translational research NIH-KL2
- Focused research NIH-K12
- Individual career development NIH-K

### A Career as a Physician Scientist

Conduct research on biomedical mechanisms, diagnosis and therapy, population and outcome medicine, health policy or health services

Work at Academic Health Centers, Hospitals, Federal laboratories, or Biotech/Pharmaceutical industry



- Collaborate with a team of researchers NIH-U01, R24
- Independent research projects grants NIH-R01, R21

## NIA Individual Awards

K22  
K99/R00

K38  
K01  
K08  
K23

GEMSSTAR  
K76  
LRP

Butler-Williams  
Scholars Program

\* Supplement to Enhance Diversity is applicable at all career levels



# How NIH and NIA Can Help you Become a **Dentist-Scientist**

Career with

**DDS/DMD-PhD**

Definitely want dental research as a major part of a medical career

NIA

Institutional Awards

R25 ADAR\*

T32/T35\*

**Complete a PhD**

- Graduate fellowship [NIH-F30](#), [NIH-F31](#)
  - Integrated DDS/DMD – PhD NIDCR institutional [NIH-T32](#), [T90](#)

**College**  
Explore Research



- Summer research [NIH-R25](#)
- One-two years after college [NIH-IRTA](#)
- Summer Internship Program at NIH

**Dental School**  
Engage in Research



**Explore research**

- Summer research [NIH-T35](#)
- Full year research [NIH-TL1](#)
- Full year research [NIH-MSRP](#)
- NIDCR Summer Dental Student Award
- NIH Clinical Electives Program

Career with

**DDS/DMD**

Interested in health and disease and a career with research

NIA

Individual Awards

F30

F31

# How NIH and NIA Can Help you Become a **Dentist-Scientist**

## NIA Institutional Awards

R38\*

### Postdoctoral Research & Dental Specialty

Build research and clinical skills



- Opportunities in NIH Clinical Center
- Pursue a Master's Program or PhD F32
- Postdoctoral Research NIDCR T32, T90/R90
- Dental Clinical Research Fellowship at NIH
- Dental Public Health Residency
- Dentist Pathway to Independence K99/R00
- Loan Repayment Award NIH-LRP

### Early Faculty

Combine clinical care and research



- Clinical translational research NIH-KL2
- Focused research NIH- K12
- Individual career development NIH-K

### A Career as a Dentist Scientist

Conduct research on biomedical mechanisms, diagnosis and therapy, population and outcome medicine, health policy or health services

Work at Academic Health Centers, Hospitals, Federal Laboratories, or Biotech/Pharmaceutical industry



- Collaborate with a team of researchers NIH-U01, R24
- Independent research projects grants NIH-R01, R21
- National Practice Based Research Network NIH PBRN

## NIA Individual Awards

K22  
K99/R00

K38

K01

K08

K23

GEMSSTAR

K76

LRP

Butler-Williams  
Scholars Program

*\*Supplement to Enhance Diversity is applicable at all career levels*



# Explore NIH Training Opportunities

Division of Biomedical Research Workforce



SEARCH  FAQs  
 Contact Us

About DBRW

Career Path

Programs

Institute/Program Matrix

Resources

NIH programs help to prepare the skilled, creative and diverse biomedical research workforce of tomorrow



Undergraduate and Postbaccalaureate Education

Predocctoral Training/  
Clinical Doctorate

Postdoctoral Training/  
Clinical Residency

Early Research Career  
Development

Investigator  
Development and  
Mentoring

<https://researchtraining.nih.gov/>



# Explore NIA Training and Career Development



## [Institutional Training Grants \(T & R25\)](#)

Learn about training grants available to universities, centers, and other institutions.



## [Individual Fellowship Awards \(F\)](#)

Learn about individual fellowships available to graduate students, postdocs, and independent researchers.



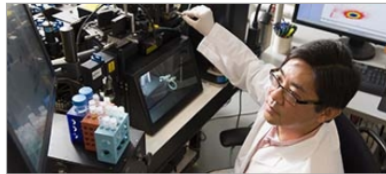
## [NIH Loan Repayment Program for Clinical Researchers](#)

Learn about loan repayment opportunities.



## [Research Career Development Awards \(K\)](#)

Funding opportunities for independent investigators and postdocs pursuing independent research careers.



## [Training Opportunities for Special Populations](#)

NIA participates in programs to increase diversity in the research workforce, from high school to early-career investigators and clinician-researchers.



## [Research and Entrepreneurial Development Immersion \(REDI\)](#)

Individual and institutional awards supporting entrepreneurial training.

# Train with NIA Intramural Researchers in Baltimore

- Thinking about a career in research and looking for a way to try it out? Want to build on your aging research interest with more lab experience?
- The NIA Intramural Research Program offers excellent training opportunities in **laboratory and clinical medicine** related to aging.
- Opportunities for high school, college, post-bac, medical students, and post-docs .



## [Summer Internship Program](#)

This challenging program offers research training opportunities for high school, college, and medical students at NIA labs in Baltimore.



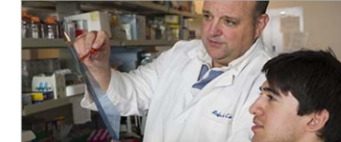
## [Diversity in Aging Research Pipeline Program \(DARPP\)](#)

DARPP is designed to develop & expose underrepresented minorities and socioeconomically disadvantaged students to aging research.



## [Post-Baccalaureate Programs](#)

Learn more about NIA's research training opportunities for recent college graduates.



## [Shock Academy for Introduction to Laboratory Skills \(SAILS\)](#)

SAILS is a three-day camp for high school students to develop the skills you need to be successful in science.

# Useful Resources

- NIA Training and Career Development:  
<https://www.nia.nih.gov/research/training>
- NIA Training Officer: Dr. Maria Carranza  
Email: [NIATraining@mail.nih.gov](mailto:NIATraining@mail.nih.gov)
- NIA Grants & Funding:  
<https://www.nia.nih.gov/research/grants-funding>
- Sample Applications:  
<https://www.niaid.nih.gov/grants-contracts/sample-applications>
- NIA Diversity Supplement Guidelines:  
<https://www.nia.nih.gov/research/diversity-supplements>



# Other Ways to Connect with the National Institute on Aging

**Inside**  
**NIA** A Blog for  
Researchers

Subscribe and see our  
recent posts on [research  
workforce diversity](#)



Read about the  
[NIH UNITE Initiative](#)

**#ResearchDiversity Day  
Twitter Chat**



Watch [video](#) on Diversity  
Supplements launched  
on Oct. 21, 2021

# Q&A

