



National Institute of  
General Medical Sciences

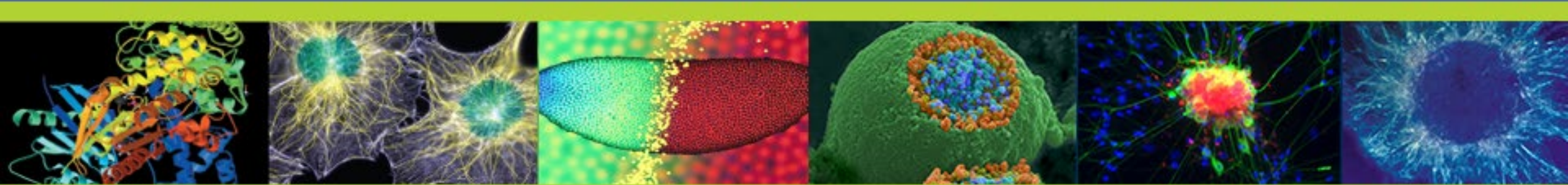


# NIGMS Training, Workforce Development and Diversity Programs

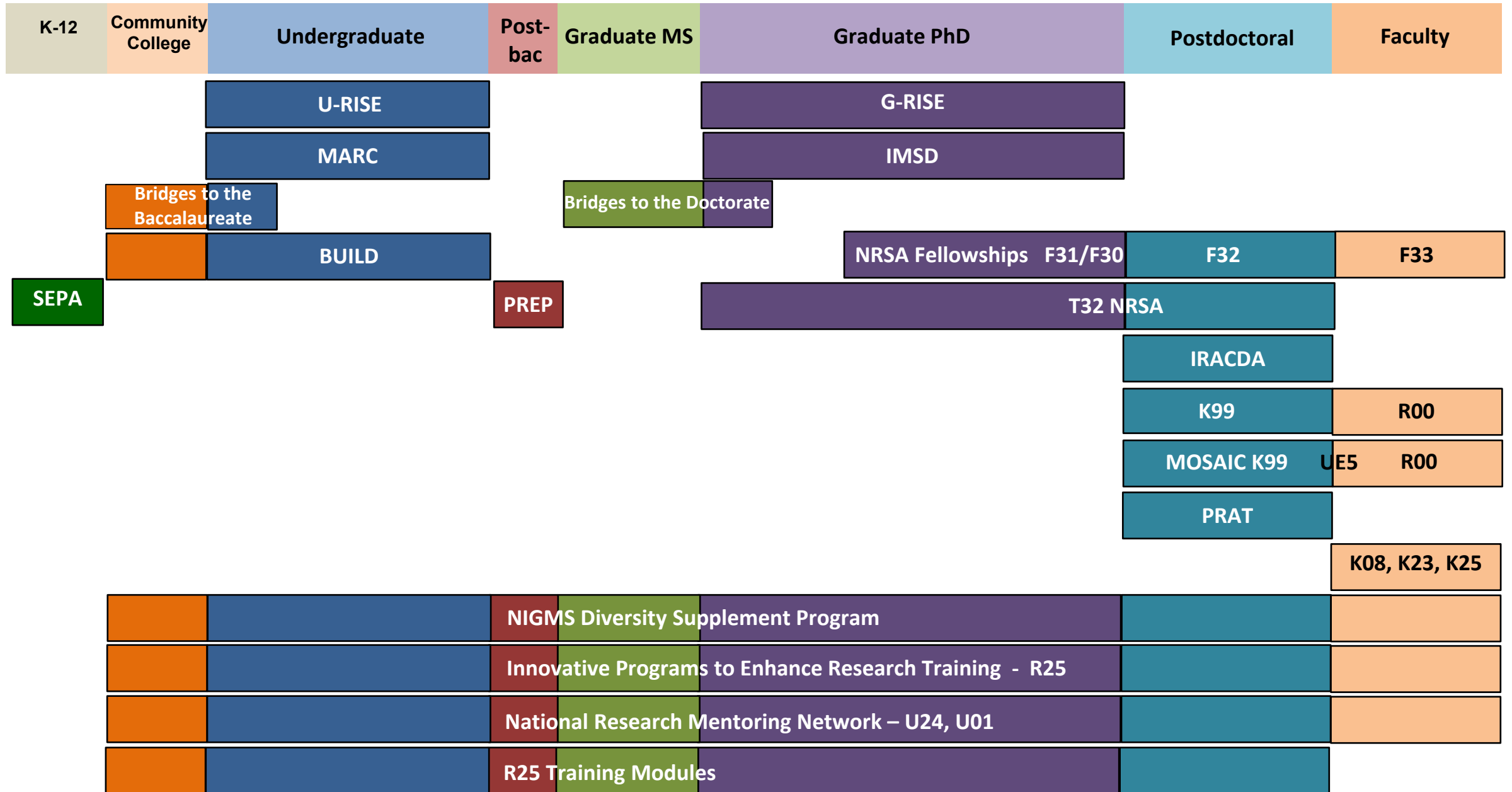
**Alison Gammie**

**Director, Training, Workforce Development, and Diversity**

**February 8, 2023**



# Training, Workforce Development, and Diversity (TWD) Programs





# Awards for Individuals – Finding the Funding Opportunity Announcement

- Most NIGMS individual awards use the “parent” Funding Opportunity – published by the Office of Extramural Research
- Exceptions: MOSAIC and PRAT

# Visit the NIH Webpage for Parent FOAs

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



DIVISION of Biomedical Research Workforce

SEARCH

Contact Us

About DBRW

Career Path

Programs

Institute/Program Matrix

Resources

Training

Fellowships

Career Development

Other Training-Related

## Programs

[RTCD Home](#) > [Programs](#)



### Training

To provide institutional research training opportunities (including international) to trainees at the undergraduate, graduate, and postdoctoral levels

- D71** International Research Training Planning Grant
- D43** International Research Training Grants
- T15** Continuing Education Training Grants
- T32** Institutional National Research Service Award



### Fellowship

To provide individual training opportunities (including international) to supported fellows at the undergraduate, graduate, postdoctoral, and senior career levels

- F05** International Research Fellowships (FIC)
- F30** Individual Predoctoral NRSA for MD/PhD Fellowships
- F31** Predoctoral Individual National Research Service Award
- F32** Postdoctoral Individual National Research Service Award



### Career Development

To provide individual and institutional career development opportunities to supported candidates at the postdoctoral, early career, and mid career levels.

- K01** Research Scientist Development Award - Research
- K02** Research Scientist Development Award
- K05** Research Scientist Awards
- K06** Research Career Awards



# Read the Funding Announcement

## Department of Health and Human Services

### Part 1. Overview Information

#### Participating Organization(s)

National Institutes of Health (NIH)

#### Components of Participating Organizations

National Cancer Institute (NCI)  
National Eye Institute (NEI)  
National Heart, Lung, and Blood Institute (NHLBI)  
National Human Genome Research Institute (NHGRI)  
National Institute on Aging (NIA)  
National Institute on Alcohol Abuse and Alcoholism (NIAAA)  
National Institute of Allergy and Infectious Diseases (NIAID)  
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)  
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)  
National Institute on Deafness and Other Communication Disorders (NIDCD)  
National Institute of Dental and Craniofacial Research (NIDCR)  
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)  
National Institute on Drug Abuse (NIDA)  
National Institute of Environmental Health Sciences (NIEHS)  
National Institute of Mental Health (NIMH)  
National Institute on Minority Health and Health Disparities (NIMHD)  
National Institute of Neurological Disorders and Stroke (NINDS)  
National Institute of Nursing Research (NINR)  
National Library of Medicine (NLM)  
National Center for Complementary and Integrative Health (NCCIH)  
Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs (ORIP)

Special Note: Not all NIH Institutes and Centers participate in Parent Announcements. Applicants should carefully note which ICs participate in this announcement and view their respective areas of research interest and requirements at the [Table of IC-Specific Information, Requirements, and Staff Contacts](#) website. ICs that do not participate in this announcement will not consider applications for funding. Consultation with NIH staff before submitting an application is strongly encouraged.

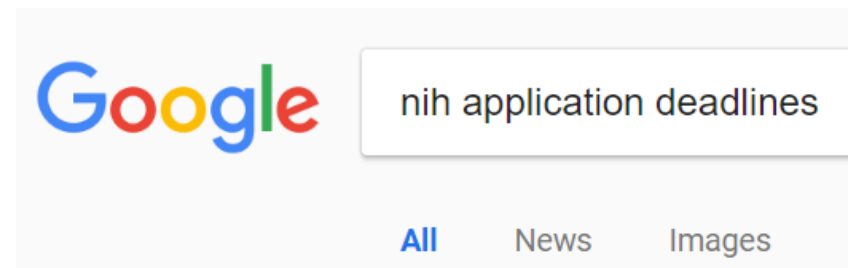
#### Funding Opportunity Title

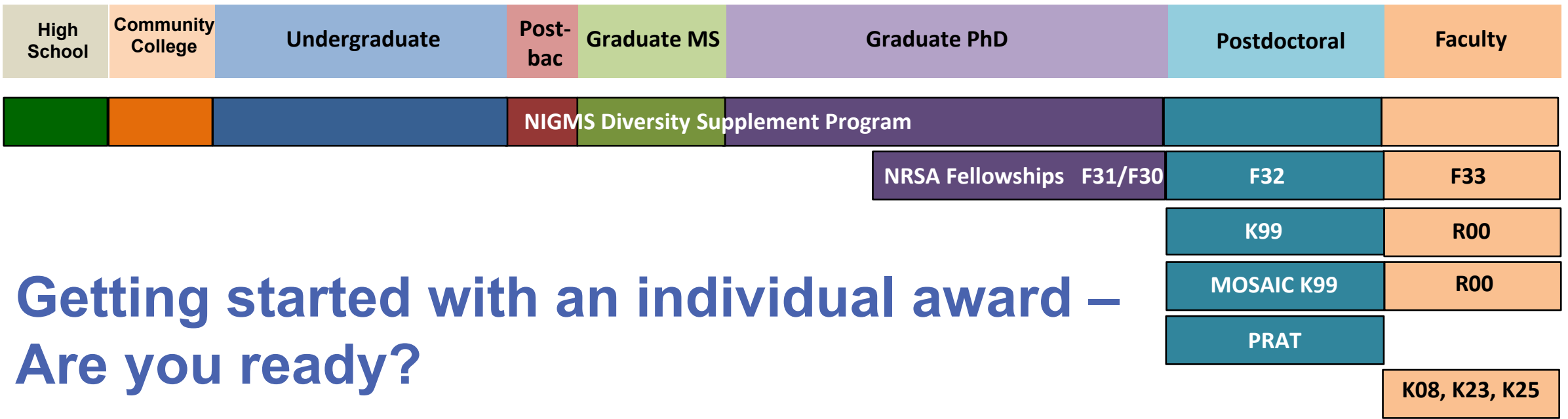
Ruth L. Kirschstein National Research Service Award (NRSA)  
Individual Predoctoral Fellowship (Parent F31)

**Not all participate**

# Keep in mind the deadlines: 1-3 per year

K series <i>renewal, resubmission, revision</i>	Research Career Development	March 12	July 12	November 12
F Series Fellowships (including F31 Diversity – <a href="#">NOT-OD-17-029</a> ) <i>new, renewal, resubmission</i>	<b>Individual National Research Service Awards (Standard)</b> (see <a href="#">NRSA Training Page</a> )	April 8	August 8	December 8





## Getting started with an individual award – Are you ready?

### Do you have:

- A research sponsor?
- A feasible scientific project that addresses a need or barrier in biomedicine?
- Strong training potential in the current research environment?
- Plans for a career as a research scientist?

# NIGMS Diversity Supplement Program

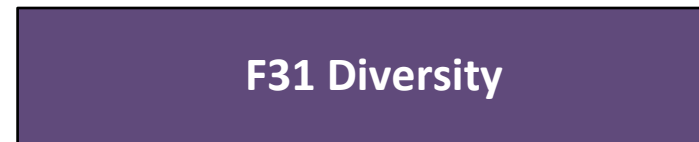


- Work with a Principal Investigator who has an active NIGMS research grant to submit a request for an administrative diversity supplement to the grant
- Use the parent FOA but be sure to contact the program contact first: [NIGMS-DSP@nigms.nih.gov](mailto:NIGMS-DSP@nigms.nih.gov)
- Applications accepted on a rolling basis



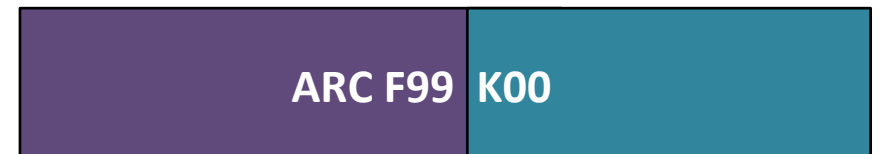
# Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31-Diversity)

Individualized, mentored research training from outstanding faculty sponsors while conducting well-defined research projects in scientific health-related fields relevant to NIGMS.



**Coming Soon**

**NIGMS Diversity Enhancing Program –  
Advancing Research Careers (ARC)**



# NRSA Individual Predoctoral MD/PhD or Other Dual-Doctoral Degree Fellowships for Students at Institutions Without NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30)



Use parent FOA

F30 dual degree (e.g., MD/PhD)

For students in combined M.D.-Ph.D. (or other dual-doctoral degree, such as D.O.-Ph.D., D.D.S.-Ph.D. and D.V.M.-Ph.D.) programs at institutions that **are not currently supported by the NIH-funded Medical Scientist Training Program**



# Individual Awards for Postdoctoral Fellows, Early Career, and Faculty



## Individual Postdoctoral National Research Service Award (NRSA) (Parent F32)

To support **postdoctoral fellows** to receive advanced and specialized training in basic and/or clinical research through an intensive, mentored research project experience that encourages the development of independence, innovation and creativity in a highly productive research setting.

## Individual Senior NRSA Fellowships (Parent F33)

To support **established independent investigators**. Intended to allow investigators to make major changes in the direction of their research careers by providing them with opportunities to spend a short period of time training with an appropriate sponsor.

# Individual Awards for Postdoctoral Fellows, Early Career, and Faculty



## Pathway to Independence Awards (Parent K99/R00)

For postdoctoral scientists to receive both mentored and independent research support from the same award. The award provides up to 5 years of support consisting of two phases.

- K99 1-2 years of mentored support to postdoctoral fellows
- R00 up to 3 years of independent support contingent on the scientist securing an independent research position

# Individual Awards for Postdoctoral/Faculty



## Career Development Awards (Parent K08/K23)

Intended for assistant professor-level clinician-scientists

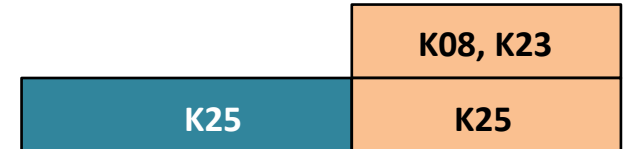
- K23 is for patient-oriented research
- K08 is for research that is not patient-oriented

**NIGMS supports clinical research in the following areas:**

- Anesthesiology
- Clinical Pharmacology
- Sepsis
- Innate Immunity and Inflammation
- Injury and Critical Illness

## Mentored Quantitative Research Career Development Awards (Parent K25)

For quantitatively trained individual (postdoctoral to senior faculty level) who are committed to conducting basic biomedical research and who have the potential to develop into productive biomedical researchers.





# NIGMS Postdoctoral Research Associate Training (PRAT) Program – NIGMS FOA

- Competitive three-year postdoctoral fellowship program that provides high quality research training in the basic biomedical sciences in NIH [intramural research laboratories](#), and prepares fellows for leadership positions in biomedical careers
- Provides stipend, health insurance, and travel/training allowance
- Structured postdoctoral program with defined training components



# Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) – NIGMS FOA

Postdoctoral Career Transition Award to Promote Diversity (K99/R00)  
Institutionally Focused Research Education Cooperative Agreement to Promote Diversity (UE5)

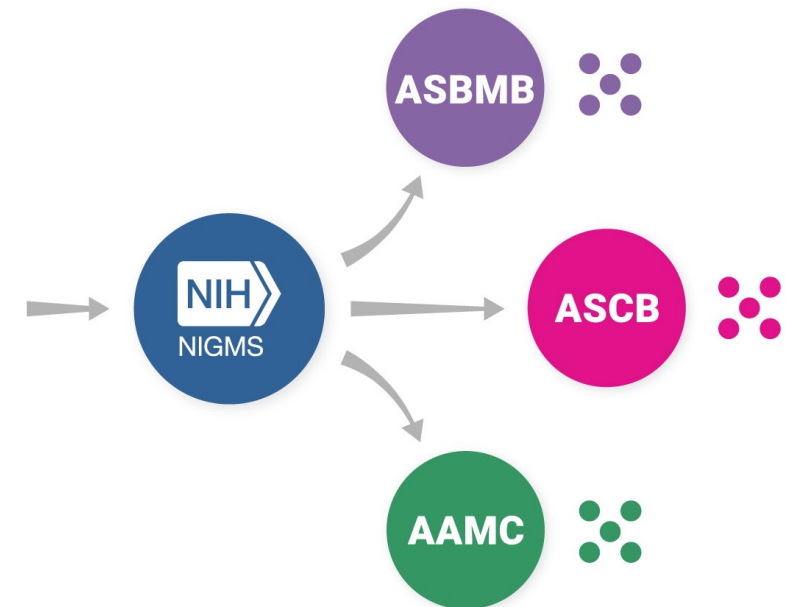
Awards to scientific societies (UE5) and time to stand up the program



MOSAIC K99/R00 Applicants Compete



MOSAIC K99/R00 Scholars Participate in Cohorts Organized by UE5





# NIGMS Loan Repayment Program (LRP)

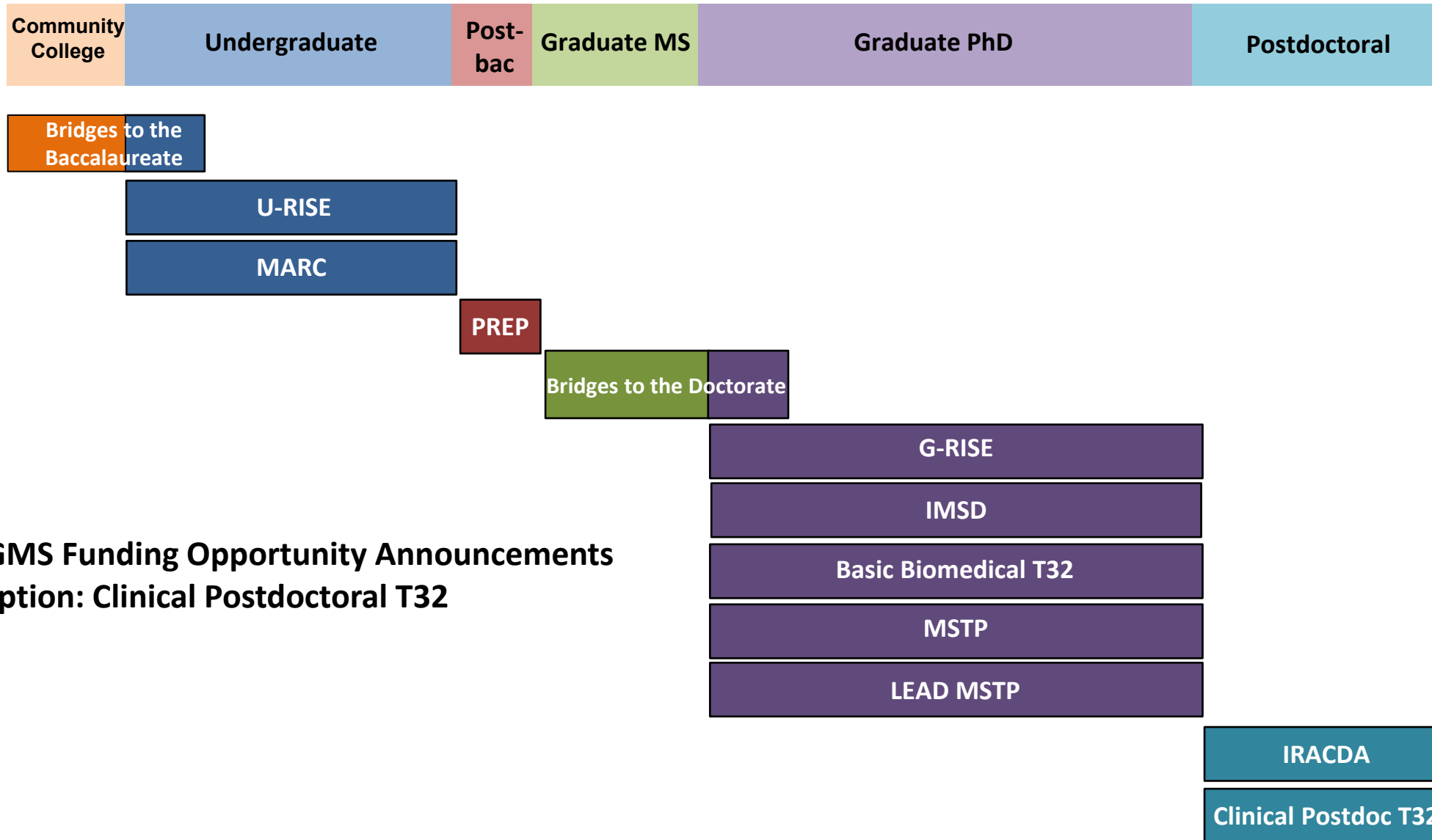


Individuals conducting research training at Non-Federal Government institutions and are currently, or have been, supported by one of these NIGMS Programs:

- NIGMS Diversity Supplement Program as postdoctoral scholars or faculty
- MOSAIC Program (K99/R00)
- Institutional Research and Academic Career Development Awards (IRACDA) – discuss shortly



# NIGMS Institutional Training Programs



Use NIGMS Funding Opportunity Announcements

- Exception: Clinical Postdoctoral T32

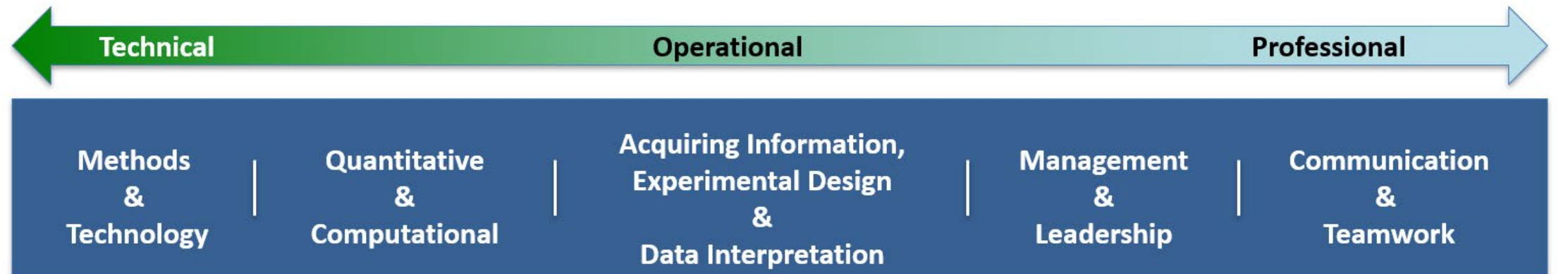
# All NIGMS Training Programs Should -

- Focus on technical, operational and professional skills development
- Promote rigor and reproducibility in research
- Teach the responsible and safe conduct of research
- Promote diversity, equity and inclusion
- Encourage inclusive, safe, and supportive research environments
- Use evidence-informed educational and mentoring practices
- Employ cohort-building activities and interventions that enhance the trainees' science identity and self-efficacy
- Provide individualized mentoring and oversight throughout
- Introduce trainees to a variety of scientific research areas and careers
- Collect and disseminate data on the success/failure of educational aims; make career outcomes publicly available



## All NIGMS Training Programs Should -

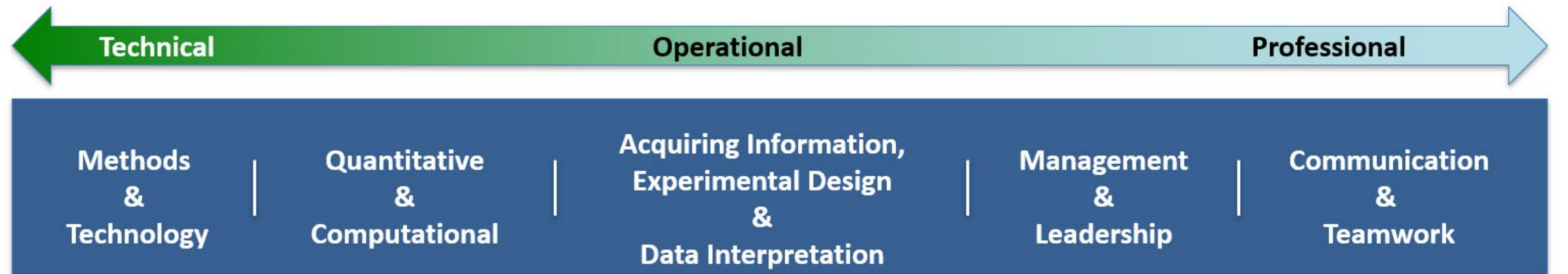
- Have **strong** institutional support
- Encourage program leadership to have complementary expertise
- Build a diverse faculty cohort with a strong commitment to training and mentoring
- Display coordinated interactions and synergies with other NIGMS-funded training programs at the institution



# Institutional National Research Service Awards (NRSA) T34/T32

## Provide

- Student stipends to defray costs of living
- Tuition remission
- Training related expenses
- Indirect costs (8%)





# PreK – 12, Undergraduate, & Postbac Programs



Undergrad trainees from our BUILD, MARC, and RISE programs share their summer [#researchtraining](https://bit.ly/2xZOgaL) [bit.ly/2xZOgaL](https://bit.ly/2xZOgaL)





# SEPA

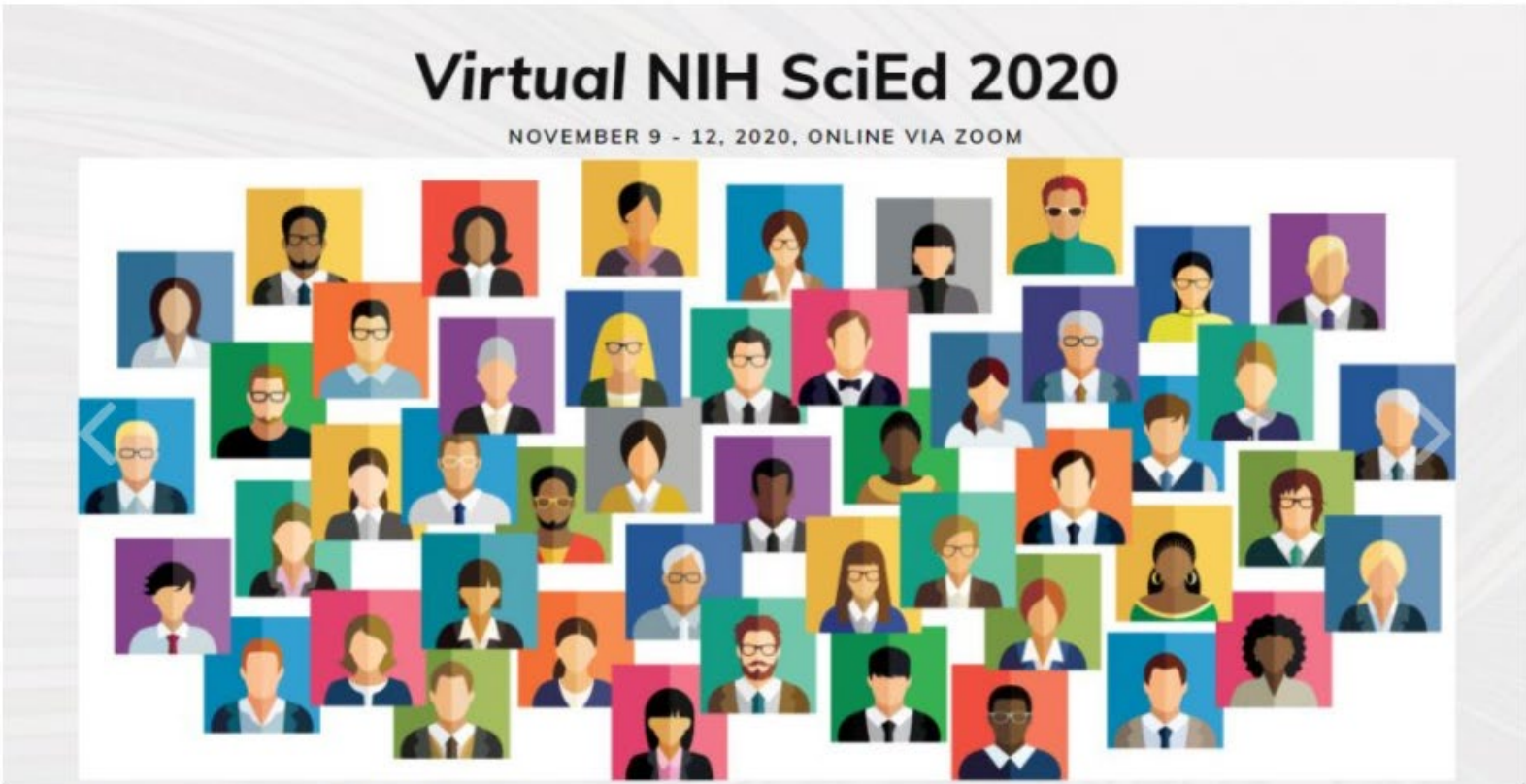
SCIENCE EDUCATION PARTNERSHIP AWARD  
SUPPORTED BY THE NATIONAL INSTITUTES OF HEALTH

PAR-20-239

PAR-20-244

PAR-20-153

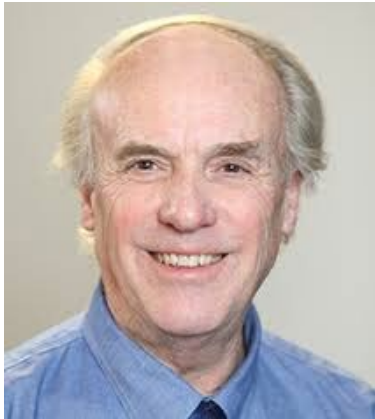
- SEPA Projects ▾
- Resources ▾
- Publications
- News ▾
- Community ▾
- Evaluation



**NIH SciEd 2020: A virtual mini-conference**

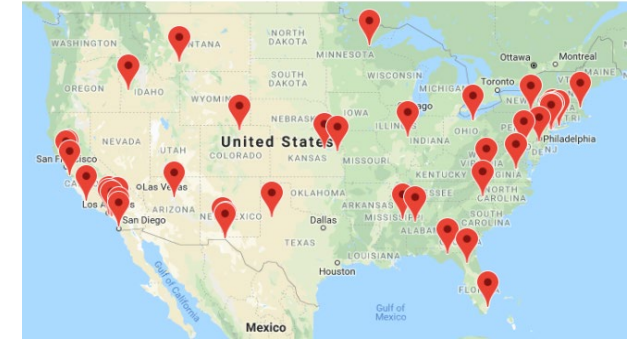
Interactive partnerships between biomedical/clinical researchers and pre-kindergarten to grade 12 teachers, schools, and other interested organizations.

Provides opportunities for students from underserved communities to consider careers in basic or clinical research.



**Tony Beck**

# Bridges to the Baccalaureate (T34)



4-year Undergraduate

Postbac

Graduate  
M.S.

Graduate Ph.D.

Postdoctoral

Community College

4-year Partner

Bridges to Bac  
(B2B)

- Emphasizes the development of a diverse pool of undergraduates that bridge from two-year to four-year institutions, and subsequently earn their baccalaureate degree in the biomedical sciences
- Encourages a strong partnership that offers a well-integrated set of activities both pre-and post-bridging (e.g., trainees conduct research both prior to and after bridging).
- Encourages articulation agreements to reduce the time-to-degree.

Applications due in September

# Maximizing Access to Research Careers (MARC) Undergraduate Research-Training Initiative for Student Enhancement (U-RISE)



MARC

Institutions  $\geq$  \$7.5 million research project grants (RPG)

Applications due in May

U-RISE

Institutions  $<$  \$7.5 million research project grants (RPG)

- T34**
- Goal is to develop a diverse pool of undergraduates who complete their baccalaureate degree, and transition into and complete biomedical, research-focused higher degree programs (e.g., Ph.D. or M.D./Ph.D.).
  - Trainee Support for 1-3 years, including a summer research experience

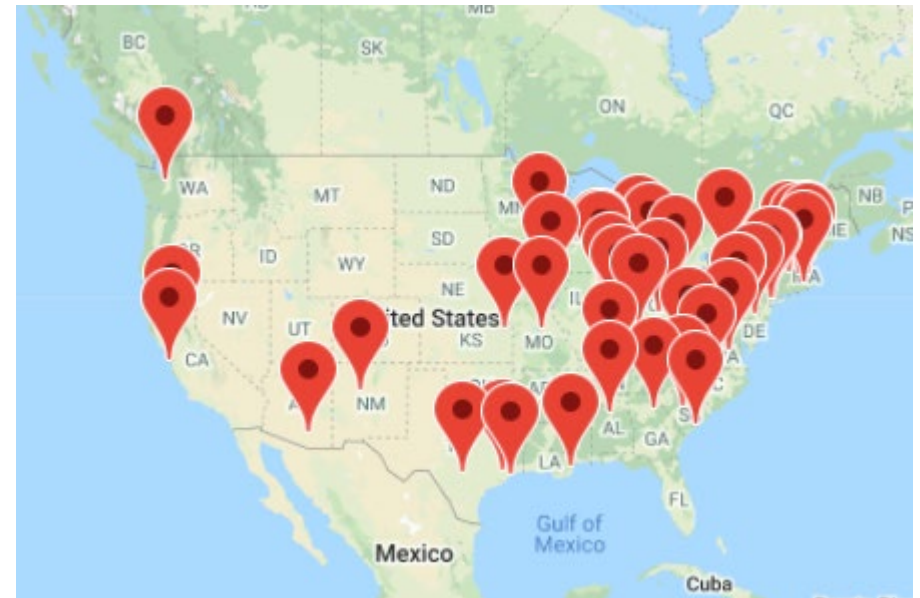




## Postbaccalaureate Research Education Program (PREP) (R25)

The goal is to develop a diverse pool of well-trained postbaccalaureates who will transition into and complete rigorous biomedical, research-focused doctoral degree programs (e.g., Ph.D. or M.D./Ph.D.) in biomedical fields relevant to the NIGMS mission.

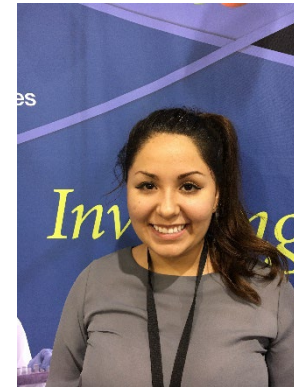
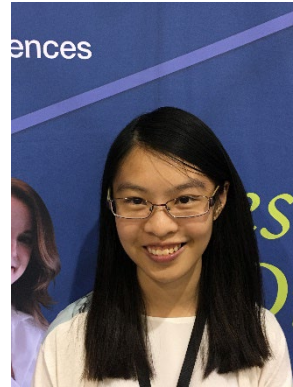
Applications due in January



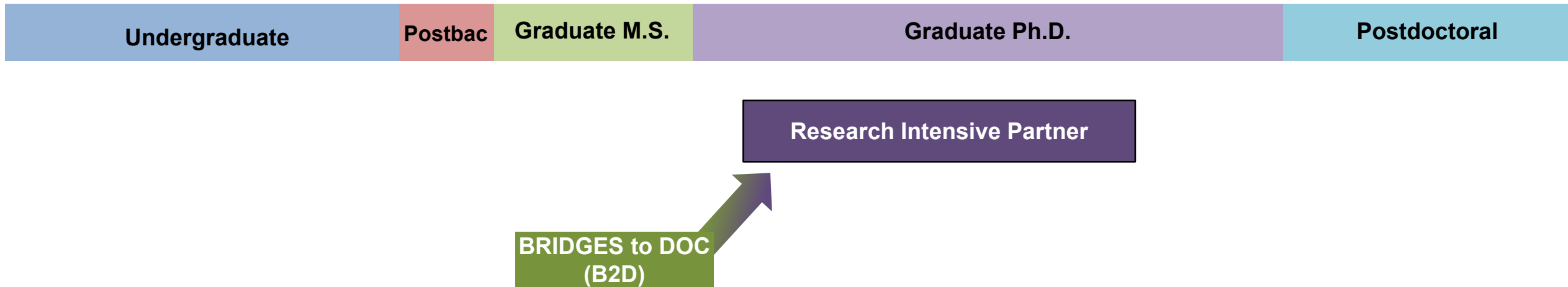
# Programs for Master's and Predoctoral Trainees

Graduate M.S.

Graduate Ph.D.



# Bridges to the Doctorate – Partnerships (T32)



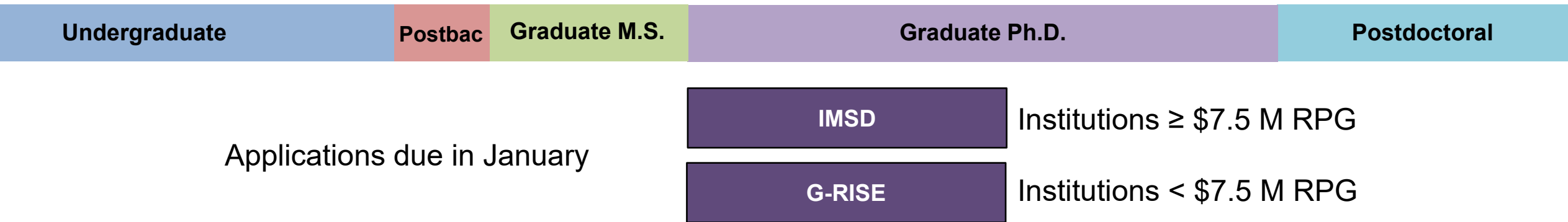
- Encourage a strong partnership that offers a well-integrated set of activities both pre-and post-bridging
- Reduce the time to Ph.D. degree (e.g., with effective skill-building activities and course credit agreements)
- Enhance the research efforts of the faculty at the master's degree granting institution through inter-institutional efforts

Applications due in September

# Diversity Enhancing Graduate Diversity Training Programs (T32)

## Initiative for Maximizing Student Development (IMSD)

## Graduate Research Training Initiative for Student Enhancement (G-RISE)



- Emphasize the development of a diverse pool of scientists earning a Ph.D., who have the skills to successfully transition into careers in the biomedical research workforce.
- Trainee Support for 2-3 years (typically early years)

# NIGMS Basic Biomedical Graduate Training (T32)

While preserving the best elements, NIGMS would like to catalyze changes in biomedical graduate training to keep pace with the rapid evolution of biomedical research



Programs in 12 broad areas of basic biomedical sciences, including *Transdisciplinary* category for institutions that do not have an NIGMS T32

Applications due in January, May, September

# Medical Scientist Training Programs (MSTP)

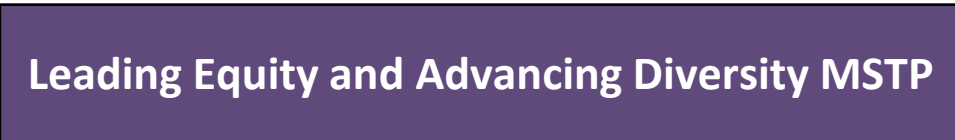
Goal is to to develop a diverse pool of highly trained clinician-scientist leaders available to meet the nation's biomedical research needs



Applications due in January, May, September



Specifically, for Historically Black Colleges and Universities, Tribal Colleges and Universities and institutions in IDeA states



Applications due in January



# Institutional Programs for Postdoctoral Trainees and Scholars

Postdoctoral



TWD 2023

# Institutional Clinical Postdoctoral Training Grants (T32)

Emphasize the selection of M.D. degree holders as trainees to provide at least 2 years of rigorous research training in basic, clinical and/or translational science areas:

- Anesthesiology
- Clinical Pharmacology
- Medical Genetics
- Injury and Critical Illness



Applications due in January  
Uses Parent T32 FOA



# Institutional Research and Academic Career Development Award (IRACDA) (K12)

- IRACDA supports postdoctoral training to prepare for independent research and teaching careers in academia
- Postdoctoral scholars have a research and teaching mentor
- Scholars split time doing research (75%) and in the classroom (25%) at the partner institution

Undergraduate

Postbac

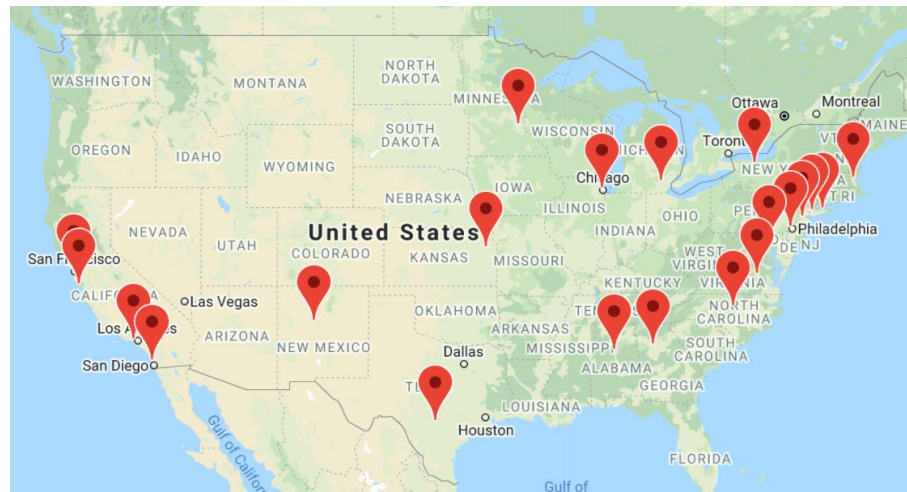
Graduate MS

Graduate PhD

Postdoctoral

IRACDA

Teaching Intensive Partner



Applications due in October

# Research Training



High School and Undergraduate



Postbaccalaureate and Graduate Students



Postdoctoral, Early Career, and Faculty



Workforce Development