



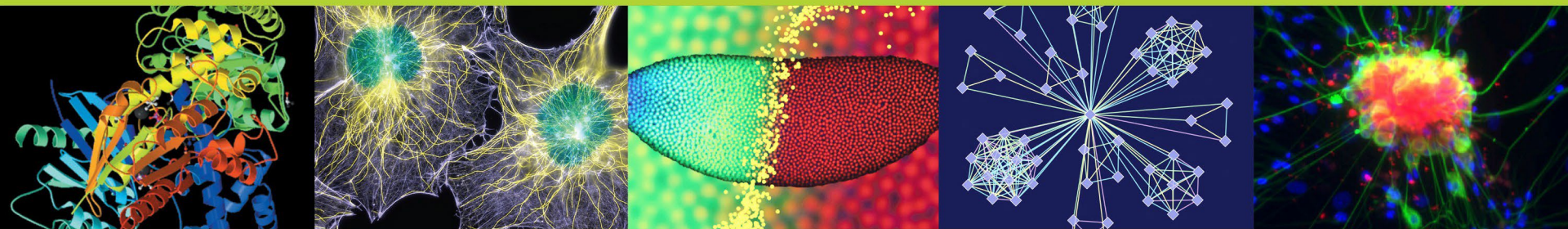
National Institute of
General Medical Sciences



Bridges Research Training Programs: Webinar for Potential Applicants

August 10, 2022

The webinar will begin at 2:30 pm Eastern time.



Before We Start

- **This webinar is being recorded** and will be available online. The slides will also be posted online.
- Type your questions in the “Q&A” chat box.
- There will be a Q&A period at the end of the webinar. You will be able to unmute yourself during this time to ask a question. Please mute yourself again when you are finished speaking.

Webinar Participants

Program

B2B: Shakira Nelson, Ph.D., Laurie Stepanek, Ph.D.

B2D: Bob Coyne, Ph.D.

Kenneth Gibbs, Ph.D., Chief, Undergraduate and
Predoctoral Cross Disciplinary Training Branch



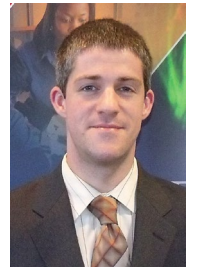
Review

Sonia Ortiz-Miranda, Ph.D., Scientific Review Officer



Grants Management

Justin Rosenzweig, Grants Management Team Leader



Tweet us!

Follow us [@NIGMSTraining](https://twitter.com/NIGMSTraining)

The image shows a screenshot of the Twitter profile for NIGMS Training & Capacity Building. The header features the text "NIGMS Training & Capacity Building" in white on a blue background. Below this is a banner image showing a group of diverse people in a laboratory setting. To the right of the banner is a map of the United States with several states highlighted in blue. The profile picture is a circular logo with the NIH chevron and the text "National Institute of General Medical Sciences Training and Capacity Building". A blue "Edit profile" button is visible on the right. The profile name is "NIGMS Training & Capacity Building" with a verified checkmark, and the handle is "@NIGMSTraining". The bio reads: "@NIGMS account for research training, careers & research capacity building news. Privacy policy bit.ly/2jnhHvZ & disclaimers bit.ly/2kGsDGM." The location is "Bethesda, MD" and the website is "nigms.nih.gov/training/Pages...". The account was joined in "October 2017".

Disclaimer

This webinar and accompanying slides are for informational purposes only. They serve as an overview of the NIGMS B2B and B2D Programs and are not meant to be comprehensive in coverage of all required components of an application.

Applicants are responsible for following the instructions detailed in the FOAs and any Related Notices (included in the FOA's Overview Information section), and the SF424 Application Guide.

For Example

Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)

National Institutes of Health ([NIH](#))

Components of Participating Organizations

National Institute of General Medical Sciences ([NIGMS](#))

Funding Opportunity Title

Bridges to the Doctorate Research Training Program (T32)

Activity Code

[T32](#) Institutional National Research Service Award (NRSA)

Announcement Type

Reissue of [PAR-19-300](#) - Bridges to the Doctorate Research Training Program (T32)

Related Notices

- **October 28, 2021** - Reminder: FORMS-G Grant Application Forms & Instructions Must be Used for Due Dates On or After January 25, 2022 - New Grant Application Instructions Now Available. See Notice [NOT-OD-22-018](#).
- **September 13, 2021** - Updates to the Non-Discrimination Legal Requirements for NIH Recipients. See Notice [NOT-OD-21-181](#).
- **August 5, 2021** - New NIH "FORMS-G" Grant Application Forms and Instructions Coming for Due Dates on or after January 25, 2022. See Notice [NOT-OD-21-169](#)
- **August 5, 2021** - Update: Notification of Upcoming Change in Federal-wide Unique Entity Identifier Requirements. See Notice [NOT-OD-21-170](#)
- **April 20, 2021** - Expanding Requirement for eRA Commons IDs to All Senior/Key Personnel. See Notice [NOT-OD-21-109](#)

Webinar Outline

- I. Program Overview
- II. Application Overview
- III. Peer Review Overview
- IV. Budget Overview

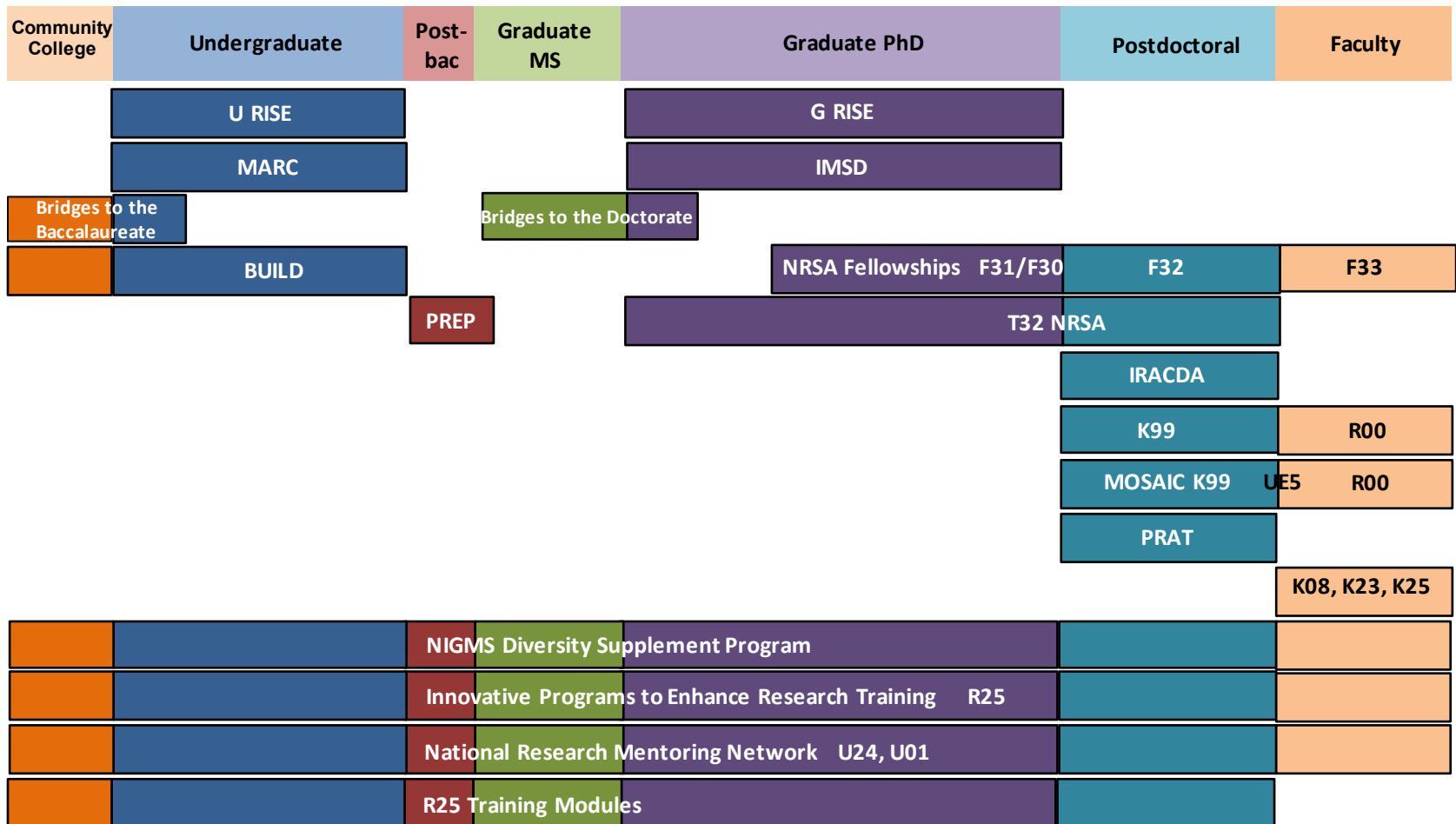
NIGMS Training Programs Are Expected To

- 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** that enhance the trainees' science identity and self-efficacy
- Provide **individualized mentoring** and oversight throughout
- Introduce trainees to a **variety of scientific careers** and research areas
- Make **career outcomes** publicly available



<https://www.nigms.nih.gov/research-areas/areas-of-research/training-workforce-development-and-diversity>

NIGMS Training Programs



[NIGMS TWD Programs](#)

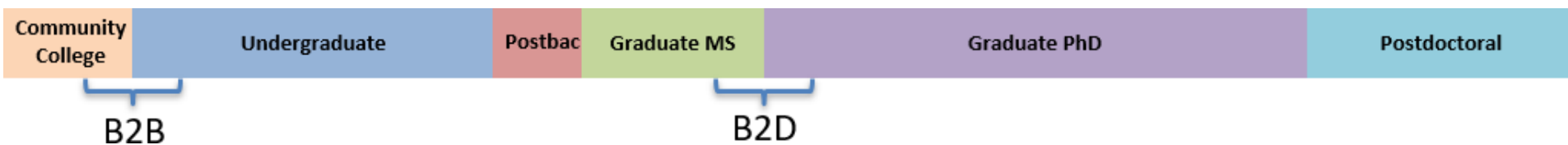
Bridges Training Program Goals

Bridge to the Baccalaureate Program (B2B) [PAR-22-125](#)

Support **strong institutional partnerships** between associate and baccalaureate degree-granting institutions to develop a diverse pool of research-oriented undergraduates who **bridge** from a community college and **complete bachelor's degrees in disciplines related to the biomedical sciences**.

Bridge to the Doctorate Program (B2D) [PAR-21-198](#)

Support **strong institutional partnerships** between terminal MS-granting and research-intensive PhD-granting institutions to develop a diverse pool of scientists **earning a Ph.D.**, who have the skills to successfully transition into **careers in the biomedical research workforce**.



Eligibility - *Institutions*

- Institutions of Higher Education (Public/Private)
- **B2B:** terminal associate degree-granting and baccalaureate degree-granting institution(s)
- **B2D:** terminal MS degree-granting and research intensive* PhD degree-granting institution(s)
- An institution is not allowed to serve as the applicant institution on more than one Bridges Program.

*Institutions with an average of NIH **research project grant** (RPG) funding \geq \$7.5 M in total costs per year over the past 3 fiscal years. See [here](#) to determine amount.

Eligibility - *Program Director (PD)/ Principal Investigator (PI)*

- **Multiple PDs/PIs (MPIs) are required** (at least one at each partner institution)
 - At least one of the PDs/PIs should be an established investigator in the biomedical sciences who can provide administrative and scientific leadership to the development and implementation of the proposed program.
- The PD/PI of the applicant institution must be designated as the contact PD/PI. PI(s) of partners designated as MPI.
- The contact PD/PI is expected to have a full-time appointment at the applicant institution unless extremely well-justified

Applications that do not meet these requirements will be considered noncompliant and will not be reviewed.

Eligibility - *Trainees*

- Must be a citizen, non-citizen national, or permanent resident of U.S.
- Matriculated as a **full-time student (40 hours or as defined by institution policies)** at CC/MGI* and majoring in biomedical science discipline at the time of initial appointment
- Trainees are required to pursue training full-time
- Appointments are normally made in 12-month increments for up to 2 years, and no trainee may be appointed for less than 9 months

*CC - Community College

* MGI - Master's Granting Inst.

Program Overview

Bridges Awards provide for the cost of appointed trainee stipends, tuition and fees, and training related expenses, including health insurance, in accordance with the approved NIH support levels.

Proposed Programs are expected to incorporate didactic, research, mentoring, and career development elements to prepare trainees with the technical, operational, and professional skills required for careers in the biomedical research workforce.

Key Program Dates

Program	FOA	Application Due Date	Review	Council	Budget Start
Bridges to the Baccalaureate Research Training Program (T34)	PAR-22-125	Oct. 3, 2022	Feb/March 2023	May 2023	July 2023
Bridges to the Doctorate Research Training Program (T32)	PAR-21-198	Oct. 3, 2022			August 2023

Due to planned grants.gov system outage from Sep. 23 – Sept. 29, 2022, 2022 **due dates have been shifted to Oct. 3** ([NOT-OD-22-190](#)).

The two-week window of consideration associated with the [NIH Late Application Policy](#) (when applicable) will be calculated from the **original due dates** (Sep. 26 for B2B and Sep. 27 for B2D).

Webinar Outline

- I. Program Overview
- II. Application Components**
- III. Peer Review Overview
- IV. Budget Overview

The Application - Page Limits

Section of Application	Select Page Limits *
Project Summary/Abstract	30 lines of text
Introduction to Resubmission Application (when applicable)	3
Program Plan	25
Advisory Committee (optional)	1
Recruitment Plan to Enhance Diversity	3
Trainee Retention Plan	3
Outcomes Data Collection and Storage Plan	2
Dissemination Plan	1
Plan for Instruction in Methods for Enhancing Reproducibility	3
Plan for Instruction in the Responsible Conduct of Research	3
Each Biographical Sketch	5
Institutional Support Letter	10
Institutional Eligibility Letter (per letter)	1

*If page limits are exceeded, the application may be withdrawn prior to review

Research Training Program Plan Form

[View Burden Statement](#)

PHS 398 Research Training Program Plan

OMB Number: 0925-0001
Expiration Date: 09/30/2024

Introduction

1. Introduction to Application (for Resubmission and Revision applications) [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

Training Program Section

2. * Program Plan [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

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5. Multiple PD/PI Leadership Plan (if applicable) [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

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Faculty, Trainees and Training Record Section

7. Participating Faculty Biosketches [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

8. Letters of Support [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

9. Data Tables [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

Other Training Program Section

10. Vertebrate Animals [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

11. Select Agent Research [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

12. Consortium/Contractual Arrangements [Add Attachment](#) [Delete Attachment](#) [View Attachment](#)

Appendix

13. Appendix [Add Attachments](#) [Delete Attachments](#) [View Attachments](#)

- Training Program Section
- Faculty, Trainees, and Training Record Section
- Appendix Section
- *Other Attachments (R&R Other Project Information Form)*

Training Program Section

[View Burden Statement](#)

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Appendix

13. Appendix [Add Attachments](#) [Delete Attachments](#) [View Attachments](#)

Training Program Section

2. Program Plan
3. Plan for Instruction in RCR
4. Plan for Enhancing Reproducibility
5. Multiple PD/PI Leadership Plan
6. Progress Report for renewals through [PAR-19-299](#) (B2B) or [PAR-19-300](#) (B2D) only

2. Program Plan (*Page limit: 25 pages*)

- Rationale, Mission, and Objectives
- Curriculum and Overall Training Plan
- Career Development
- Program Oversight, Participating Faculty Selection, and Mentor Training
- Institutional and Departmental Commitment to the Program
- Training Program Director(s)/Principal Investigator(s)
- Preceptors/Mentors (Participating Faculty)
- **B2B:** Trainee Positions, Appointment Process, Retention, and Support
- **B2D:** Application Process, Trainee Positions, Retention and Support
- Training Outcomes
- Program Evaluation and Dissemination

Rationale, Mission, and Objectives

- Rationale for the training program
 - What is the program need?
 - What are the benefits to students?
- Training mission, objectives (specific, measurable): inter-institutional context should inform the objectives and the design of the proposed program activities
- How the training activities build skills and attain objectives
- Discuss the rationale for the proposed institutional partners (proximity, current collaboration ,course credit/articulation agreements)
- Describe the current institutional efforts to promote diversity and to create inclusive research training environments

Curriculum and Overall Training Plan

- How transfers will be given credit for existing coursework, experiences, and continued to be supported and tracked
- Enhancements to the training environment beyond the supported trainees
- How the courses, structured activities, and research experiences will accomplish the specific training mission and objectives
 - How are the training activities designed to develop the technical, operational, and professional skills of trainees?
- How the training activities will employ evidence-informed approaches to trainee learning, mentorship, inclusion, and professional development
- For multi-disciplinary and/or multi-departmental programs, indicate how the individual disciplinary and/or departmental components of the program are integrated and coordinated, and how they will relate to an individual trainee's experience

Career Development

Describe how the trainees will be provided:

- Awareness of the breadth of careers available to them in the biomedical research workforce employment landscape
- Access to academic and career outcomes of previous trainees/graduates
- Skills, knowledge, and support needed to attain positions in the sectors of the biomedical research workforce that are of interest to them
- Experiential learning opportunities (e.g., internships, shadowing, informational interviews, teaching opportunities)

Program Oversight, Participating Faculty Selection, and Mentor Training

Should include:

- the planned strategy and **administrative structure** to oversee and monitor the program and to ensure appropriate and timely trainee progress.
- plan to **select faculty** based on commitment to training and mentoring
- the mechanism for **matching trainees** with the appropriate participating faculty mentors.
- a mechanism to **monitor mentoring**, including oversight of the effectiveness of the trainee/participating faculty match, and a plan for removing faculty displaying unacceptable mentorship qualities.

Institutional and Departmental Commitment

Applicants may use this section to expand upon the “Facilities & Other Resources” section and the “Letters of Support” section, **as necessary**, to provide additional information regarding the institutional and departmental commitment to the program.

Do not repeat information contained elsewhere in the application.

Program Director(s)/Principal Investigator(s)

- Multiple PDs/PIs approach is required—one from each participating institution
- Scientific expertise, administrative and training experiences
- Sufficient bandwidth to oversee the program
- Demonstrated commitment to training the next generation of biomedical research workforce
- Received training to mentor individuals from diverse backgrounds
- The application should describe the administrative structure and leadership succession plan for critical positions, including the MPI team.

Preceptors/Mentors (Participating Faculty)

Describe how:

- the participating faculty will promote the success of the trainees and the training program.
- the program has or will build a **diverse** team of participating faculty
- the faculty collaborate (joint sponsorship, team teaching, inter- intra- institutional research/teaching collaboration)
- the faculty have sufficient time to commit to training

B2B: Trainee Positions, Recruitment, Retention

- Describe the review process to identify research-oriented candidates for the program
 - Programs are encouraged to develop a process that considers metrics beyond grade point average (GPA), and standardized test scores, for example.
- Define and justify the selection and appointment criteria
- Explain the proposed training grant support structure (e.g., one year at the associate degree-granting institution, and one year at the baccalaureate degree-granting institution)
- Provide a strong justification for the number of requested trainee positions in the context of the training grant eligible pool and other training programs

B2D: Application Process, Trainee Positions, Retention and Support

Application process:

- Describe the admissions data provided in the required "Application and Admissions Data" attachment
 - Include characteristics of training grant eligible (I) applicants, (II) admitted individuals, and (III) matriculants for each of the past 5 academic years
- Explain how the program will identify and recruit a diverse pool of potential candidates from a wide variety of institutions and backgrounds
- Describe plans for a candidate review process that will allow a broad group of trainees the ability to participate in the training program
- Provide a strong rationale if the training program does not conduct its own recruitment and admissions for Ph.D. students entering the university and instead appoints students who were admitted by university departments or other graduate programs

B2D: Application Process, Trainee Positions, Retention and Support

Trainee Positions:

- Describe how large the program will be across all cohorts
- Provide a strong justification for the number of requested funded slots per year in the context of the training grant eligible pool, the size of the proposed program, the number of participating faculty, etc.
- Explain the proposed training grant support structure

Retention and Support:

- Expand upon the Trainee Retention Plan
- Describe the ability for participating department(s) and/or the institution(s) to support trainees for the duration of their graduate careers
- Describe efforts of the program to maintain support for the trainees throughout the Ph.D. program

Training Outcomes

- Provide trainee outcomes for students in similar programs at the institution for up the last five years
 - B2B: [Tables 5C, 8D](#), and [suggested tables B1, B2, or B3](#)
 - B2D: [Tables 5A, 8A](#)
- Degree **completion rates** (*Baccalaureate for B2B; PhD for B2D*) and **time-to-degree** for recent graduates. Data should have institutional *comparator* groups, graduation rates for all students in the STEM fields represented, and a description of **career outcomes**
- Although the training tables for new applications only allow for **5 years** of recent graduate outcomes, the application may describe up to **15 years** of outcomes in the narrative

Program Evaluation and Dissemination

- Describe the evaluation or assessment **process** to be used to determine whether the overall program is **effective**
- Explain how the plan will effectively **track** trainee educational and career **outcomes**
- Explain how the program will share the outcomes of the training or mentoring interventions
- The application may include the "Evaluation and Assessment Instruments" Appendix to provide blank survey instruments, rubrics, or form

3. Plan for Instruction in the Responsible Conduct of Research (3 pages)

- All applications must include a plan to fulfill NIH requirements for instruction in the Responsible Conduct of Research (RCR).
- Describe how integrated into overall curriculum, complemented with mentored research experiences
- Plan must describe how participation in RCR instruction will be monitored
- The plan must address the five required components:
 - 1) Format
 - 2) Subject Matter
 - 3) Faculty Participation
 - 4) Duration of Instruction
 - 5) Frequency of Instruction

**Applications lacking an RCR plan will not be reviewed.
See [NOT-OD-10-019](#) and [NOT-OD-22-055](#) for more details.**

4. Plan for Instruction in Methods for Enhancing Reproducibility (3 pages)

- Applicants are required to provide a Plan for Instruction in Methods for Enhancing Reproducibility
- The plan must describe how trainees will be instructed in principles important for enhancing research reproducibility. These principles include, at a minimum:
 - evaluation of the foundational research underlying a project (i.e., the rigor of the prior research);
 - rigorous experimental design and data interpretation;
 - consideration of relevant biological variables such as sex;
 - authentication of key biological and/or chemical resources

If this plan is not included, the application will be considered incomplete and will not be reviewed

Rigor & Reproducibility Resources

- **NIH Website on Rigor and Reproducibility:**
<https://www.nih.gov/research-training/rigor-reproducibility>
- **Clearinghouse for Training Modules to Enhance Data Reproducibility:**
<https://www.nigms.nih.gov/training/pages/clearinghouse-for-training-modules-to-enhance-data-reproducibility.aspx>
- **NIGMS Administrative Supplements R & R:**
<https://www.nigms.nih.gov/training/instpredoc/Pages/rigor-rep.aspx>

5. Multiple PD/PI Leadership Plan

- Since multiple PDs/PIs must be designated in the application, the application must include a Multiple PD/PI Leadership Plan
- The emphasis should be on how multiple PD/PIs will benefit the program and the trainees.
- Plans should describe:
 - The governance and organizational structure of the leadership team and training program
 - A communication plan
 - Process for making decisions
 - Procedures for resolving conflicts
- Check the SF424 Application Guide for additional details (use the Training Instructions, [page T-98](#))

Faculty, Trainees, and Training Record Section

[View Burden Statement](#)

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Required

7. Participating Faculty Biosketches

8. Letters of Support

9. Data Tables

7. Faculty Biosketches *(5-page limit, each)*

Personal statement should address their commitment to:

- Training, mentoring, and promoting inclusive, safe and supportive scientific research environments
- Maintaining a record of, and providing training in rigorous and unbiased experimental design, methodology, analysis, interpretation, and reporting of results
- Supporting trainees participating in activities required to identify and transition into careers in the biomedical research workforce
- Fulfilling the need of the trainees to complete their degrees in a timely fashion

8. Letters of Support

- Three letters of support must be included in the application

1. Institutional Support and Commitment Letter (10 pages maximum)

- A single letter on the applicant institution's letterhead, signed by each participating institution's central administrator
- Letter must outline each institution's respective role in administering the program
- Must describe how the resources within the partnering institutions will be leveraged to enhance the competitiveness of the trainees

Institutional Support and Commitment Letter

Page limit: 10 pages combined into a single document.

As applicable, the letter should address how the institution:

- Supports core facilities and technology resources that can enhance training
- Provides staff, facilities, and educational resources to the planned program
- Supports the PDs/PIs and other staff associated with the planned program
- Ensures that faculty have protected time for to mentoring, training and research
- Fosters and rewards excellence in training and mentoring
- Promotes diversity and inclusion at all levels of the research training environment
- Ensures that facilities promote the safety of trainees
- Ensures that facilities are accessible to trainees with disabilities
- Promotes a positive, supportive and inclusive environment
- Ensures trainees access to student support services
- Provides resources for evaluating the training outcomes of the program
- Explain how the program will synergize and share resources
- Explain how the faculty, pool of potential trainees, and resources are sufficient
- Policies and procedure are in place to prevent and respond to discriminatory harassment and other discriminatory practices

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-19-029.html>

8. B2B Letters of Support

2. Associate Degree-Granting Institutional Eligibility Letter (1-page maximum, per letter)

- Provost or similar official with institution-wide responsibility must certify that the institution does not offer baccalaureate degrees in STEM fields.

3. Baccalaureate Degree-Granting Institutional Eligibility Letter (1-page maximum, per letter)

- Provost or similar official with institution-wide responsibility must certify that the institution offers baccalaureate degrees in STEM fields.

If a letter is not included for each institution, the application will be considered incomplete and will not be reviewed.

8. B2D Letters of Support

2. Master's Degree-Granting Institutional Eligibility Letter (1-page maximum, per letter)

- Provost or similar official with institution-wide responsibility from each partner must certify that the institution(s) does not offer doctoral degrees in the biomedical sciences.

3. Research-Intensive Partner Eligibility Letter (1-page maximum, per letter)

- Provost or similar official with institution-wide responsibility from each partner must certify that in total, each institution has an average of RPG funding greater than or equal to \$7.5 million total costs (both direct and F&A/indirect costs) per year over the past 3 fiscal years.

If a letter is not included for each institution, the application will be considered incomplete and will not be reviewed.

9. Data Tables

- Choose New or Renewal Applications as appropriate
- B2B: Use Undergraduate Training Tables
- B2D: Use Predoctoral Training Tables

For those with a R25 Bridges Program, your application will be a NEW application, not a renewal.

Data Tables (FORMS-F)

Update: The Data Tables will be updated soon to reflect the new OMB expiration date of 09/30/2024 associated with the FORMS-G clearance. There are no changes to the tables themselves. Continue to use the currently posted versions.

Use these data tables with Institutional Research Training grant applications. Select the appropriate blank data tables and instructions. Sample data tables and FAQs are available to help you.

The Instructions and Sample Data Tables file includes example data, detailed instructions, and rationale statements for each table. These are designed to print best in landscape mode. The Blank Data Tables file provides fillable format pages.

Introduction	Date Posted	File Link/Format/Size
Introduction to Data Tables - Read this first!	3/25/2020	MS Word (53 KB) PDF (437 KB)

Data Tables	Date Posted	Blank Data Tables File Link/Format/Size	Instructions and Sample Data Tables File Link/Format/Size
All Tables			
All Training Tables (1-8)	3/25/2020	MS Word (35 KB)	MS Word (122 KB) PDF (584 KB)
All Training Tables (Undergraduate Programs)	3/25/2020	MS Word (22 KB)	MS Word (68 KB) PDF (114 KB)

<https://grants.nih.gov/grants/forms/data-tables.htm>

B2B: Required Data Tables

Table	Title of Table
2	Participating Faculty Members
3	Federal Institutional Research Training Grant and Related Support Available to Participating Faculty Members
4	Research Support of Participating Faculty Members
5C	Publications of Those in Training: Undergraduate
8D	Program Outcomes: Part 1 (Renewals) or Part II (New)

- A summary of key data from the tables should also be included in the narrative (Program Plan) of the application. Make sure information in tables and narrative are consistent.
- Include data for all partnering institutions.

Applications that do not include these data tables will not be reviewed.

B2B: Suggested Data Tables

Table	Title of Table
A.1	Undergraduates and Faculty in Participating Biomedical Departments and Interdepartmental Programs
A.2	Student Population Characteristics
A.3	Undergraduate Graduation Rates
B.1, B.2, or B.3	Past Trainee Record (5-Year, 10-Year, or 15-Year)

- If appropriate, include [Suggested Data tables](#) within the Training Program Plan (suggested tables counts toward the 25-page limit). A summary of key data from the tables should also be included in the narrative of the application.
- Include data for all partnering institutions

DO NOT include Suggested Tables in the required Data Tables attachment

B2D: Required Data Tables

Table #	Title of Table	New Applications	Renewal Applications
Table 1	Census of Participating Departments or Interdepartmental Programs	Except last 2 columns	Last column only applies to T90/R90
Table 2	Participating Faculty Members		
Table 3	Federal Institutional Research Training Grant and Related Support Available to Participating Faculty Members		
Table 4	Research Support of Participating Faculty Members		
Table 5A	Publications of Those in Training: Predoctoral		
Table 7	Appointments to the Training Grant for Each Year of the Current Project Period	Not Applicable	
Table 8A	Program Outcomes: Predoctoral	Part III Only	

- A summary of key data from the tables should also be included in the narrative (Program Plan) of the application. Make sure information in tables and narrative are consistent.
- Include data for all partnering institutions.
- **Table 6A not required and must not be included**

Applications that do not include these data tables will not be reviewed.

B2D: Suggested Data Tables

- [Suggested Format Table A](#): Numbers and Characteristics of Applicants, Admitted Individuals, and Matriculants
 - Single departmental programs
 - Interdisciplinary programs with multiple admissions
- The Suggested Format Table A should be combined with the other required attachments (such as the Recruitment Plan to Enhance Diversity, Trainee Retention Plan, etc.) and uploaded to “Other Project Information” of the PHS 398 Research Training Program Plan Forms F and must not be included in the Data Table section.
- Include data for all partnering institutions

DO NOT include Suggested Tables in the required Data Tables attachment

Appendix

[View Burden Statement](#)

PHS 398 Research Training Program Plan

OMB Number: 0925-0001
Expiration Date: 09/30/2024

Introduction		
1. Introduction to Application (for Resubmission and Revision applications)	<input type="text"/>	Add Attachment Delete Attachment View Attachment
Training Program Section		
2. * Program Plan	<input type="text"/>	Add Attachment Delete Attachment View Attachment
3. Plan for Instruction in the Responsible Conduct of Research	<input type="text"/>	Add Attachment Delete Attachment View Attachment
4. Plan for Instruction in Methods for Enhancing Reproducibility	<input type="text"/>	Add Attachment Delete Attachment View Attachment
5. Multiple PD/PI Leadership Plan (if applicable)	<input type="text"/>	Add Attachment Delete Attachment View Attachment
6. Progress Report (for Renewal applications)	<input type="text"/>	Add Attachment Delete Attachment View Attachment
Faculty, Trainees and Training Record Section		
7. Participating Faculty Biosketches	<input type="text"/>	Add Attachment Delete Attachment View Attachment
8. Letters of Support	<input type="text"/>	Add Attachment Delete Attachment View Attachment
9. Data Tables	<input type="text"/>	Add Attachment Delete Attachment View Attachment
Other Training Program Section		
10. Vertebrate Animals	<input type="text"/>	Add Attachment Delete Attachment View Attachment
11. Select Agent Research	<input type="text"/>	Add Attachment Delete Attachment View Attachment
12. Consortium/Contractual Arrangements	<input type="text"/>	Add Attachment Delete Attachment View Attachment
Appendix		
13. Appendix	<input type="text"/>	Add Attachments Delete Attachments View Attachments

Required

- Required Training Activities (2 pages max per activity)
- Responsible Conduct of Research Syllabi (2 pages max total)

Optional

- Elective Activities (2 pages max per activity)
- Conflict Resolution Protocols (3 pages max total)
- Evaluation and Assessment Instruments

Applications will be withdrawn before review if non-compliant due to either (a) missing required appendices or (b) exceeding the page limits.

Other Attachments

RESEARCH & RELATED Other Project Information

OMB Number: 4040-0001
Expiration Date: 12/31/2022

1. Are Human Subjects Involved? Yes No

1.a. If YES to Human Subjects

Is the Project Exempt from Federal regulations? Yes No

If yes, check appropriate exemption number. 1 2 3 4 5 6 7 8

If no, is the IRB review Pending? Yes No

IRB Approval Date:

Human Subject Assurance Number:

2. Are Vertebrate Animals Used? Yes No

2.a. If YES to Vertebrate Animals

Is the IACUC review Pending? Yes No

IACUC Approval Date:

Animal Welfare Assurance Number:

3. Is proprietary/privileged information included in the application? Yes No

4.a. Does this Project Have an Actual or Potential Impact - positive or negative - on the environment? Yes No

4.b. If yes, please explain:

4.c. If this project has an actual or potential impact on the environment, has an exemption been authorized or an environmental assessment (EA) or environmental impact statement (EIS) been performed? Yes No

4.d. If yes, please explain:

5. Is the research performance site designated, or eligible to be designated, as a historic place? Yes No

5.a. If yes, please explain:

6. Does this project involve activities outside of the United States or partnerships with international collaborators? Yes No

6.a. If yes, identify countries:

6.b. Optional Explanation:

7. Project Summary/Abstract

8. Project Narrative

9. Bibliography & References Cited

10. Facilities & Other Resources

11. Equipment

12. Other Attachments

Required

- Recruitment Plan to Enhance Diversity
- Trainee Retention Plan (3-page limit)
- Outcomes Data Collection and Storage Plan (2-page limit)
- Dissemination Plan (1-page limit)
- **B2B Only:**
 - Articulation Agreement
- **B2D Only:**
 - Application and Admissions Data
 - Institutional Course Credit Agreements

Optional

- Advisory Committee (1-page limit)

Recruitment Plan to Enhance Diversity (3 pages)

- Describe outreach strategies and activities to recruit trainees from underrepresented groups (see [NOT-OD-20-031](#)).
- Describe specific efforts to be undertaken by the training program, including the involvement of training program faculty
- Centralized institutional recruitment efforts alone are not sufficient
- Accommodation is not the same as outreach or active recruitment of students with disabilities
- Please name your file “Recruitment_Plan.pdf”
- Potential effective strategies:
<https://www.nigms.nih.gov/training/diversity/pages/approaches.aspx>

Applications that do not include this attachment will be withdrawn prior to review.

Trainee Retention Plan (3 pages)

- Describe efforts to sustain the scientific interests of trainees from all backgrounds.
- Describe the specific efforts to be undertaken by the training program, including the involvement of training program faculty
- Centralized institutional retention efforts alone is not sufficient
- Please name your file “Retention_Plan.pdf”.
- Resources:
 - <https://www.nigms.nih.gov/training/diversity/pages/approaches.aspx>
 - <https://extramural-diversity.nih.gov/building-participation/recruitment-retention>

Applications that do not include this attachment may be withdrawn prior to review.

Outcomes Data Collection and Storage Plan (2 pages)

- The applicant **must** provide a plan to track the outcomes for all supported trainees for a minimum of 15 years beyond the trainee's participation in the program.
- Describe how the data will be centralized, safeguarded, and retrievable during leadership changes (1-page maximum, part of the 2 pages).
- Please name your file "Data_Collection_Storage_Plan.pdf"

Applications that do not include this attachment may be withdrawn prior to review.

Dissemination Plan (1 page)

- A specific plan **must** be provided to disseminate nationally any findings resulting from or materials developed under the auspices of the research training program
- Examples of dissemination may include data or materials from successful training or mentoring interventions via web postings, presentations at scientific meetings, and/or workshops
- Please name your file “Dissemination_Plan.pdf”

Applications that do not include this attachment may be withdrawn prior to review.

B2B Required Attachment: Articulation Agreement

- This **must** be included to provide evidence that there is synergy between the participating institutions in terms of transfer of course credits, to ensure timely progression to degree.
- Please name your file “Articulation_Agreement.pdf”

B2B Applications that do not include this attachment will be considered incomplete and will not be reviewed

B2D Required Attachment: Institutional Course Credit Agreement

- This **must** be included to provide evidence that there is synergy between the participating institutions in terms of transfer of course credits, to ensure timely progression to degree.
- Please name your file “Institutional_Agreement.pdf”

B2D Applications that do not include this attachment will be considered incomplete and will not be reviewed

B2D Required Attachment: Application and Admissions Data

- This data **must** be provided to allow for the evaluation of the ability of participating departments/interdepartmental programs to recruit training grant eligible individuals
- Provide the numbers and characteristics of training grant eligible (I) applicants, (II) admitted individuals, and (III) matriculants for each of the past 5 academic years as well as the average over those years.
- Applicants are encouraged to use [Suggested Table A](#), and to report on the categories listed in the [Notice of NIH's Interest in Diversity](#)
- Demographic data should be from voluntary self-reporting
- Please name your file "Application_Admissions_Data.pdf"

B2D Applications that do not include this attachment may be withdrawn prior to review.

Advisory Committee (1 page maximum) *Optional*

- An Advisory Committee is not a required component of a training program.
- If an Advisory Committee is intended, provide a plan for the appointment of members
- The roles, responsibilities, and desired expertise of committee members, frequency of committee meetings, and other relevant information should be included.
- Only pre-existing Advisory Committee members should be named in the application. Potential Advisory Committee members should not be identified or contacted prior to receiving an award
- Please name your file “Advisory_Committee.pdf”

Common Pitfalls



- Not reading the FOA and Notices thoroughly
- Lack of measurable objectives
- Not clear how current program design is informed by past efforts
- Unclear training activities and timeline
- Insufficient justification for the need for the proposed Bridges program, distinction from current programs
- Incomplete or confusing data tables that don't align with narrative in the Program Plan
- Weak justification for the proposed partnership

Webinar Outline

- I. Program Overview
- II. Application Overview
- III. Budget Overview**
- IV. Peer Review Overview

Budget Overview

Budget - Trainees

- Support is allowed for **trainees** in the form of a **stipend**.
- All trainees are required to pursue their training full time, as specified by the sponsoring institution in accordance with its own policies.
- Appointments are normally made in 12-month increments. Appointments of less than 9 months require prior approval from the assigned NIGMS Program Officer.
- A Bridges appointment may not be held concurrently with another Federally sponsored fellowship, traineeship, or similar Federal award that provides a stipend or otherwise duplicates provisions of the Bridges appointment.

Stipends, Tuition, and Fees

- Kirschstein-NRSA awards provide stipends as a subsistence allowance to help defray living expenses during the research training experience.
- NIH will contribute to the combined cost of tuition and fees at the rate in place at the time of award.
- Stipend levels, as well as funding amounts for tuition and fees, are announced annually in the NIH Guide for Grants and Contracts, and are also posted on the Ruth L. Kirschstein National Research Service Award (NRSA) webpage.

Bridges to Doctorate - Trainee Travel

- NIGMS will provide up to **\$1,000** per trainee to travel to scientific meetings or training experiences that will enhance scientific development, build science identity, create a sense of belonging in the scientific community, and build professional networks.
- For Bridges-supported institutions outside the continental United States, **\$1,250** for travel per trainee will be provided.

Bridges to Baccalaureate - Trainee Travel

- NIGMS will provide up to **\$1,000** per trainee to travel to scientific meetings or training experiences that will enhance scientific development, build science identity, create a sense of belonging in the scientific community, and build professional networks. For Bridges-supported institutions outside the continental United States, **\$1,250** for travel per trainee will be provided.
- Trainees are required to spend at least one summer in a research training experience at the baccalaureate degree-granting institution. Funds will be provided in the amount of **\$3,000** per Bridges trainee, to be used in accordance with the institutional policies as a per diem for a period of up to ten weeks.

Training Related Expenses

- TRE that may be requested is limited to a maximum:
 - B2B: \$10,000 per trainee per year; maximum total TRE of \$100,00 per year
 - B2D: \$8,400 per trainee per year.
- For both programs, TRE funds are typically used for costs associated with skills development training activities; seminar speakers; and training and mentoring interventions. For B2B, TRE funds may also be used for curriculum or methods development
- For both programs, program evaluations costs are typically up to \$3,000 for the 5-year training grant period
- Other program related expenses, including personnel and administrative costs, may be included within the training-related expenses

Personnel Effort

- TRE funds may be used for personnel costs/staff salary. Typically, salary support for the PD/PI/co-Investigators (or in a combination of multiple PD(s)/PI(s)/co-Investigators) does not exceed 1.8 person months (i.e., 15% effort on a 12-month basis) in total, depending on the size and scope of the program.
- Typically, the total combined salary support for other administrative personnel (e.g., program administrator/program coordinator and/or program assistant/clerical support) does not exceed 3.0 person months (i.e., 25% effort on a 12-month basis) depending on the size and scope of the program.

xTrain for Student Appointments

- All Bridges trainees must have an appointment form submitted through the eRA Commons to xTrain before they may receive their stipend.
- If participants cannot continue in the grant program for the full appointment period, an amended appointment must be submitted to xTrain with the correct appointment period.
- For the Doctorate Program, ^{Click to add text} Termination Notice must be submitted through xTrain within 30 days of the end of the total support period.
- xTrain Web Page - application guide, quick reference sheets, FAQs, training materials: https://era.nih.gov/services_for_applicants/other/xTrain.cfm

Appointments are normally made in 12-month increments.

Webinar Outline

- I. Program Overview
- II. Application Overview
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- IV. Peer Review Overview**

Review of Applications

- Bridges applications are reviewed by one of two standing NIGMS review committees: TWD-C or TWD-D.
www.nigms.nih.gov/Research/application/Pages/reviewcommittees.aspx
- Applications will be assigned to either TWD-C/D to balance conflicts and workload.
- Receipt letter from scientific review officer will provide information about meeting dates, instructions for providing updates, link for committee roster, and people to contact during the review and post-review process.
- Scores and summary statements accessed through PI's eRA Commons account.

Review of Applications

- Please read the review criteria while preparing your application to make sure all of the required information is included.
- Review panel will assess your application against the review criteria.

Review Criteria- Section V of FOA

Scored Review Criteria

- **Training Program and Environment**
 - Rationale, Mission, and Objectives
 - Curriculum and Overall Training Plan
 - Career Development
 - Program Oversight, Participating Faculty Selection, and Mentor Training
 - Institutional and Departmental Commitment to the Program
- **Training Program Director(s)/Principal Investigator(s)**
- **Preceptors/Mentors (Participating Faculty)**
- **Trainee Positions, Appointment (B2B)/Application (B2D) Process, Retention, and Support**
- **Training Record**
 - Training Outcomes for Trainees (renewals) or Training Grant Eligible Pool (new)
 - Program Evaluation

Review Criteria- Section V of FOA

Additional Review Criteria (part of Overall Impact score but no separate scores given)

- **Training in Methods for Enhancing Reproducibility** [plan]- Acceptable Y/N?
- **Recruitment Plan to Enhance Diversity** - Acceptable Y/N?
- **Training in the Responsible Conduct of Research** [plan]- Acceptable Y/N?
- [Protections for Human Subjects, Vertebrate Animals, Biohazards]
- **Resubmissions/Renewals**

Additional Review Considerations (no separate scores given and not considered in Overall Impact score)

- [Select Agent Research]
- **Budget and Period of Support** (# Trainee Slots)

Application Preparation - Reminders

Check Application

- Read the FOA thoroughly and make sure that your application addresses all the training elements and that all requested materials are included.

Content

- Make sure that materials are supplied in the correct locations, per FOA instructions.
- Successful submission through Grants.gov and eRA Commons does **not** mean appropriate responsiveness to the program announcement.
- Allow enough time to carefully check your application after submission. We cannot accept any missing items after the receipt deadline.



Applications will be *withdrawn* if anything is missing or unallowed materials are included!

Application Preparation - Reminders

Page Limits

- Supply all requested materials within page limits.
- Do **not** “overstuff” sections that don’t have page limits or use appendices to get around the limits.

Appendices

- Note that the Appendix should **only** be used in circumstances covered in the [NIH policy on appendix materials](#) and as the FOA **specifically** instructs applicants to do so.
- The Bridges FOAs require specific Appendix materials.

Avoid non-compliance and withdrawal: [Feedback Loop Post](#)

Application Preparation - Tips

Comprehensive

- Present the **institutional** framework and environment of your program.
- Address **all** the requirements of the program announcement.

For example:

- If you don't have institutional baseline data, explain how you plan to obtain it.
 - If you haven't fully formed your evaluation plan, at least acknowledge that you are working on it.
- Describe how your program “works”

For example:

- How are students recruited and selected? By whom?
- What does the advisory committee do? How often do they meet?
- How have you used evaluation information in designing/improving your program?

Application Preparation - Tips

Clear

- Don't bury important information; don't expect reviewers to "read between the lines" to figure out what you are proposing.
- Include clear, measurable and attainable program goals
- Present outcomes data in a straightforward manner.
 - Don't exaggerate.
 - Don't hide data (reviewers will "do the math").
 - It is far better to present results as they are and address how the program aims to improve.
- Do not summarize data on the Training Tables itself. Summaries should be included in the program plan section only.
 - **Inclusion of summarized data would be considered overstuffing**

Application Preparation - Tips

Current

- Make sure faculty biosketches are up-to-date, in correct format, and relevant for training program
- Provide data on current and prior students
- Use the most recent institutional data

Consistent

- **Data in tables and text should match**
- Data should be consistent across tables
- Match justification to budget items
- Refer to the correct program in text and tables
- Include a timeline for the activities

Review Process - Usual Timeline

Timeframe

Activity

(From submission date)

1 - 2 months

Referral

2 - 6 months

Review Panel

6 - 7 months

Summary Statement Available

7 - 8 months

Advisory Council

8 - 9 months

Funding Decisions

9 - 10 months

Award Start Date

Critical Deadlines

- Letter of Intent Due Date(s)
 - Not Applicable
- Application Due Date(s)
 - October 3, 2022 - B2B
 - October 3, 2022 – B2D
- Earliest Start Date
 - July 2023 – B2B
 - August 2023 – B2D

Reminder: Due to planned grants.gov system outage from Sep. 23 – Sept. 29, 2022, 2022 **due dates have been shifted to Oct. 3** ([NOT-OD-22-190](#)).

The two-week window of consideration associated with the [NIH Late Application Policy](#) (when applicable) will be calculated from the **original due dates** (Sep. 26 for B2B and Sep. 27 for B2D).

For additional information

- Funding Opportunity Announcements:
 - B2B [PAR-22-125](#); [B2B website](#)
 - B2D [PAR-21-198](#); [B2D website](#)
- [FAQs for NIGMS Undergraduate and Predoctoral Training Programs](#)
- [Frequently Asked Questions – Application Guide, Electronic Submission of Grant Applications](#)

Agency Contacts

Program: B2B

- Shakira Nelson, Ph.D.
shakira.nelson@nih.gov
- Laurie Stepanek, Ph.D.
laurie.stepanek@nih.gov

Program: B2D

- Bob Coyne, Ph.D.
robert.coyne@nih.gov

Grants Management

- Justin Rosenzweig
rosenzwj@nigms.nih.gov

Review

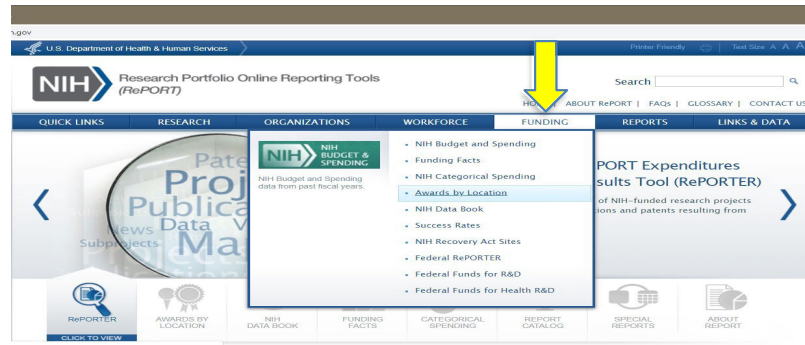
- Sonia Ortiz-Miranda, Ph.D.
sonia.ortiz-miranda@nih.gov
- Tracy Koretsky, Ph.D.
tracy.koretsky@nih.gov

Thank you!

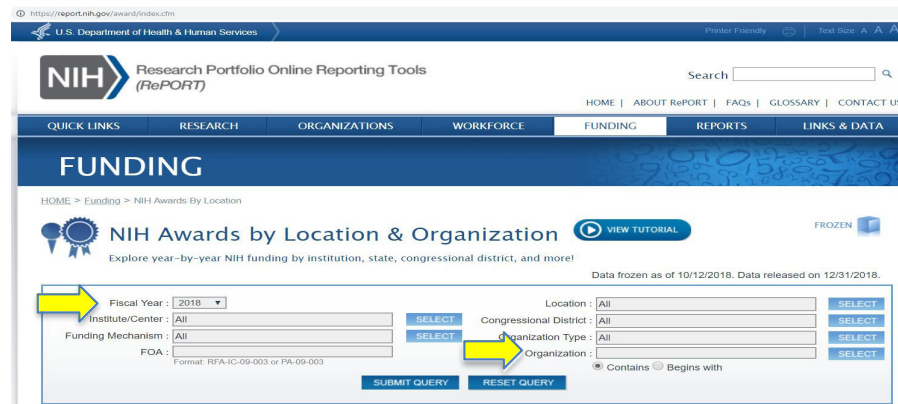
Questions

NIH RePORTER- B2D PhD Partner(s)

1. To determine RPG funding, visit [NIH RePORTER](#). Select the **Funding** feature.



2. Select **Awards by Location** and enter the institution name in the **Organization** cell. After entering the institution, click **SELECT**.



3. Select the institution from the sub listing provided. **Submit Query**.

NIH RePORTER- B2D PhD Partner(s)

4. View funding amount for “RPG- Non SBIR/STTR”. *Note: The current FY is the default, select the FY for the last 3 years and calculate the average for all 3 years.* For example, for applications submitted in September 2020, use FY 19, 18 and 17 RPG funding.

Funding Mechanism ▼	Dollar Amount	Awards
Other Research-Related	\$675,234	3
Research Centers	\$4,631,159	2
RPGs - Non SBIR/STTR	\$419,536	1
Training - Institutional	\$1,636,379	2
Total	\$7,362,308	8

Research Intensive: Institutions with an average of NIH [research project grant \(RPG\)](#) funding greater than or equal to \$7.5 million in total costs per year over the past 3 fiscal years

NIGMS Research Divisions

Division of Biophysics, Biomedical
Technology, and Computational
Biosciences

Division of Genetics and Molecular,
Cellular, and Developmental Biology

Division of Pharmacology,
Physiology, and Biological
Chemistry

The National Institute of General Medical Sciences (NIGMS) supports basic research that increases our understanding of biological processes and lays the foundation for advances in disease diagnosis, treatment, and prevention. NIGMS-funded scientists investigate how living systems work at a range of levels from molecules and cells to tissues and organs, in research organisms, humans, and populations.

<https://www.nigms.nih.gov/about/overview/Pages/default.aspx>