

Division of Training,  
Workforce Development  
and Diversity

National Institute of  
General Medical  
Sciences

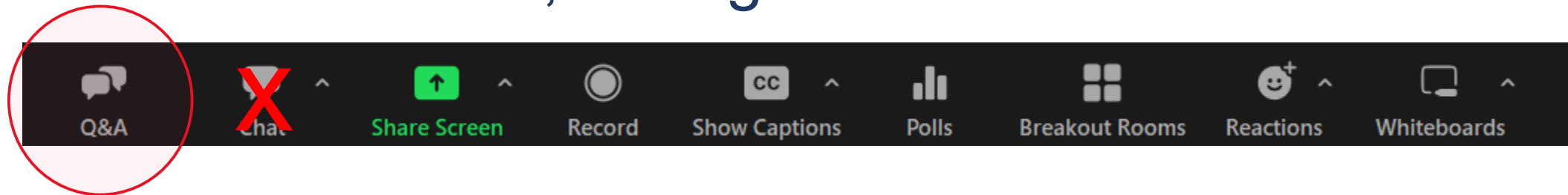
December 4, 2023

# **NIGMS Basic Biomedical Sciences Institutional Research Training Grant (T32) (PAR-23-228)**

Program: Mercedes Rubio  
Grants Management: Brett Hodgkins  
Review: Isaaah Vincent

# Webinar Information

- The webinar video and slides will be available on the NIGMS website.
- Please type your questions in the Q&A box, instead of in the chat box, throughout the webinar.



- If time permits, there will be an open Q&A period at the end of the webinar.

# Disclaimer

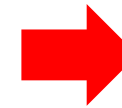
- This webinar and accompanying slides are for informational purposes only. They serve as an overview and are not meant to be comprehensive in coverage of all required components of an application.
- For any submission, applicants are responsible for following the instructions detailed in the SF424 Guide, the Notice of Funding Opportunity and any Related Notices.





# Additional Disclaimer

- Leading Equity and Diversity in the Medical Scientist Training Program (LEAD MSTP; [PAR-23-030](#))

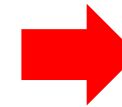
<https://www.nigms.nih.gov/training/instpredoc/pages/PredocDesc-Contacts.aspx#lead-mstp>



 2022 Webinar Videos
 2022 Webinar Slides

- Medical Scientist Training Program (MSTP; [PAR-21-189](#))

<https://www.nigms.nih.gov/Training/InstPredoc/Pages/default.aspx>



## Latest News/Events

2023 Basic Biomedical Sciences and MSTP T32 NOFOs Webinar: [video](#) | [slides \[PDF\]](#)

# Is the Proposed Predoctoral Program a Good Match with NIGMS?

- Basic Biomedical Sciences Training ([PAR-23-228](#)):
  - Twelve areas that correspond to the NIGMS-supported areas of basic biomedical sciences and/or other emerging areas within the NIGMS mission.
- Clinician-Scientist Training:
  - Leading Equity and Diversity in the Medical Scientist Training Program (LEAD MSTP; [PAR-23-030](#))
  - Medical Scientist Training Program (MSTP; [PAR-21-189](#))

Consult with NIGMS Program Official before submitting.

<https://www.nigms.nih.gov/training/instpredoc/pages/PredocDesc-Contacts.aspx>

# Scientific Areas for NIGMS Predoctoral Basic Biomedical Sciences T32

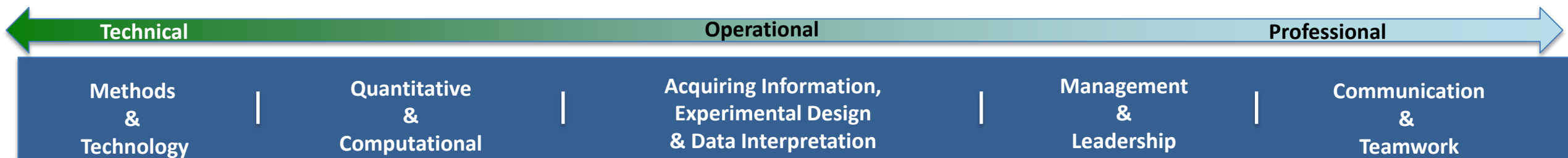
- Behavioral-Biomedical Sciences Interface
- Biostatistics
- Biotechnology
- Cellular, Biochemical, and Molecular Sciences
- Chemistry-Biology Interface
- Computational Biology, Bioinformatics, and Biomedical Data Science
- Genetics
- Molecular Biophysics
- Molecular Medicine
- Pharmacological Sciences
- Systems and Integrative Biology
- Transdisciplinary Basic Biomedical Sciences

# NIGMS Program Objectives

- To develop a diverse pool of well-trained scientists available to address the nation's biomedical research needs.
- Provides support to eligible, domestic organizations to develop and implement a rigorous, well-designed research training program that implements effective, evidence-informed approaches to biomedical graduate training and mentoring that keep pace with the rapid evolution of the biomedical research enterprise.
- NIGMS expects the proposed research training programs will incorporate didactics, research, and career development elements to prepare trainees for careers that impact on the health-related research needs of the nation.

# Major Themes in NIGMS Predoctoral T32 Training Programs

- **Training objectives**-- specific, obtainable and measurable
- **Trainee skills development**--use of evidence-informed approaches to provide technical, operational, and professional skills
- **Rigor and transparency, responsible & safe conduct** of research throughout the training experience
- **Commitment to diversity and inclusion**
- **Promote a culture of safety**





# Major Themes in NIGMS Training Programs (continued)

- **Mentor training and oversight** of trainee/mentor matches
- **Career preparedness**—provide knowledge of and skills to transition into the range of careers in the biomedical research workforce
- **Strong organizational support** for research training
- **Evaluation**—the collection and dissemination of data on the success/failure of education aims. Make career outcomes publicly available



# What is new in PAR-23-228?

- **Attachments Section.** The number of required **other attachments** is less:
  - *Two attachments are required:* recruitment plan to enhance diversity and baseline data on the trainee pool.
  - *Two attachments are now optional:* advisory committee and training activities.
  - All other attachments from the previous NOFO have been eliminated. No other attachments may be included in this section, or the application will be withdrawn without review.
- **Appendices Section.** Requirements for **appendices** have been eliminated. Applications may only contain appendices that are allowed according to the SF424 Application Guide. Applications that contain any additional appendices will be withdrawn without review.

Applicants may incorporate information previously allowed in the attachments and appendices (for example, retention plans, trainee data collection and storage, conflict resolution protocols) into the *training program plan* as indicated in the NOFO.

# What is new in PAR-23-228?

- New language to encourage the following:
  - Faculty training and resources for trainees with disabilities.
  - Trainee feedback, climate evaluation, and confidentiality considerations when evaluating the program.
  - Program director's/principal investigators' involvement with day-to-day activities, including trainee interactions.
  - Program oversight, including trainee development, progress, and mentor/mentee relationships.
- New language to clarify that training programs are typically not considered human subjects research.
- Research training program-specific instructions in the Facilities and Other Resources section.

<https://loop.nigms.nih.gov/2023/10/funding-opportunity-predocotrinal-basic-biomedical-sciences-research-training-program-t32/#more-16755>

# Applications Types



# New vs. Renewal Applications

- Application is considered NEW if the applicant organization:
  - Does not have an NIGMS Predoctoral Basic Biomedical Sciences T32
  - Funded through [PA-14-015](#), [PA-16-152](#), or [PA-18-403](#)
- Application is considered RENEWAL if the applicant organization:
  - Has a funded grant through NIGMS notice of funding opportunity [PAR-17-341](#) or [PAR-20-213](#)
- There are different requirements for New vs Renewals (for example, Training Tables and Progress Report)

# Resubmissions: New vs. Renewal Application

- NEW applications (organizations with no Predoctoral Basic Biomedical Sciences T32 or funded through [PA-14-015](#), [PA-16-152](#), or [PA-18-403](#)) that are not funded **are not** allowed to submit a RESUBMISSION application (no –A1).
- Unsuccessful NEW applications are encouraged to reapply by submitting another NEW applications that utilizes constructive feedback from the previous review.
- RENEWAL applications (grant funded through NIGMS NOFOs [PAR-17-341](#) or [PAR-20-213](#)) that are not funded on the initial attempt may be revised and resubmitted as a RESUBMISSION application (as an –A1).

# New, Renewals and Resubmissions

There are different requirements for New vs Renewals (for example, Training Tables and Progress Report) and for Resubmissions.

Content	New No –A1s	Renewal NOFOs <u>PAR-17-341</u> or <u>PAR-20-213</u>	Resubmission (-A1) NOFOs <u>PAR-17-341</u> or <u>PAR-20-213</u>
Introduction page(s) to respond	X	X	✓
Mentions of previous overall or criterion scores	X	X	✓
Mentions of reviewers' comments	X	X	✓
Responding to prior review	X	X	✓
Mention or marks how the application has been modified	X	X	✓
Progress Report/Progress Report publication list	X	✓	✓
Training outcomes	X	✓	✓
Table 7: Appointments to the Training Grant	X	✓	✓

# Additional Guidance

- NIGMS will not accept applications for Predoctoral Basic Biomedical Sciences T32 with any of the following:
  - Submitted through the Parent T32 NOFO, [PA-23-048](#) or any subsequent reissuances.
  - Propose short-term research training
  - Include combined predoctoral and postdoctoral training programs
  - Propose clinician-scientist training programs
- Organizations interested in a clinician-scientist program are to consider NOFOs:
  - Leading Equity and Diversity in the Medical Scientist Training Program (LEAD MSTP; [PAR-23-030](#))
  - Medical Scientist Training Program (MSTP; [PAR-21-189](#))



# **Some Aspects of SF424 and Application Components**

# Follow the SF424, NOFO and Notices

- Check the SF424 Application Guide—Form H for institutional training:

[Training Instructions For NIH and Other PHS Agencies](#)

- NOFO supersedes the SF424 Guide
- Notices supersedes the NOFO and the SF424 Guide
- Check the NOFO for required items:
  - Notices
  - Required attachment
  - Optional material
  - Appendices

Released: August 5th, 2023



## TRAINING INSTRUCTIONS FOR NIH AND OTHER PHS AGENCIES

SF424 (R&R) APPLICATION PACKAGES

# Twelve Areas of NIGMS Predoctoral Basic Biomedical Sciences T32

NIGMS will support only one training program in a basic biomedical science research training area per applicant organization (normally identified by having a Unique Entity Identifier (UEI) and a unique NIH eRA Institutional Profile File (IPF) number).

Applicant organizations are to identify the program area of interest. In the “Agency Routing Identifier” field (4b) indicate the digit code & abbreviation of the area (e.g., 1 BBS)

4. a. Federal Identifier

b. Agency Routing Identifier

c. Previous Grants.gov Tracking ID

<b>1 BBS</b>	Behavioral-Biomedical Sciences Interface	<b>7 Gen</b>	Genetics
<b>2 BS</b>	Biostatistics	<b>8 MB</b>	Molecular Biophysics
<b>3 BT</b>	Biotechnology	<b>9 MM</b>	Molecular Biology
<b>4 CBM</b>	Cellular, Biochemical and Molecular Sciences	<b>10 PS</b>	Pharmacological Sciences
<b>5 CBI</b>	Chemistry-Biology Interface	<b>11 SIB</b>	Systems and Integrative Biology
<b>6 CBB</b>	Computational Biology, Bioinformatics, and Biomedical Data Science	<b>12 TBB</b>	Transdisciplinary Basic Biomedical Sciences

# Application Components & Page Limits

Application Components	Page Limit
Project Summary/Abstract	30 lines of text
Research Training Program Plan	25 pages
<b>Required Attachment #1:</b> Recruitment Plan to Enhance Diversity	3-page max
<b>Required Attachment #2:</b> Baseline Data on the Trainee Pool	
Suggested Format Table A for Single Component Suggested Format Table A & Table B for Multi-Component/Multi-Organizational	
<b>Optional Attachment #1:</b> Advisory Committee	1-page max
<b>Optional Attachment #2:</b> Training Activities (for example, streamlined syllabi with topics, timelines, activities, credits, etc.)	10-page max
<b>Additional Attachment:</b> Responsible Conduct of Research	Follow SF424
<b>Additional Attachment:</b> Instruction in Methods for Enhancing Reproducibility	Follow SF424
Each Biosketch (include commitment to scientific rigor, training & mentoring, to promoting inclusive, safe, & supportive scientific environments)	5-page max
Organizational Support Letter	10-page max



# Research Training Program Plan Format

[View Burden Statement](#)      **PHS 398 Research Training Program Plan**

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**Introduction**

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

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**Training Program Section**

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

3. Plan for Instruction in the Responsible Conduct of Research  [Add Attachment](#)

4. Plan for Instruction in Methods for Enhancing Reproducibility  [Add Attachment](#)

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

6. Progress Report (for Renewal applications)  [Add Attachment](#)

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**Faculty, Trainees and Training Record Section**

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

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

9. Data Tables  [Add Attachment](#)

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**Other Training Program Section**

10. Vertebrate Animals  [Add Attachment](#)

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

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

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**Appendix**

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

## Multiple Sections - FOLLOW THE NOFO!

- ← Training Program Plan (25 page maximum) – use headers
- ← Responsible Conduct of Research follow SF424
- ← Instruction in Methods for Enhancing Reproducibility follow SF424
- ← Multi-PD/PI Leadership Plan (if applicable)
- ← Renewal Only – Progress Report
  
- ← Biosketches (5 pages max each)
- ← Required Organizational Letter (10 pages maximum)
- ← Required Data Tables
  - New: 1, 2, 3, 4, 5A, 8A
  - Renewal: 1, 2, 3, 4, 5A, 7, 8A
  
- ← Generally, not applicable

Appendix – Follow [SF424 Application Guide](#)

# 2. Research Training Program Plan

Follow the NOFO, not the SF424 Application Guide

- ✓ Rationale, Mission and Objectives
- ✓ Curriculum and Overview of Training Plan
- ✓ Career Development
- ✓ Program Oversight of Training and Mentoring
- ✓ Training Program Director(s)/Principal Investigator(s) (PDs/PIs)
- ✓ Preceptors/Mentors (Participating faculty)
- ✓ Career Review Process, Trainee Appointment & Financial Support
- ✓ Training Outcomes
- ✓ Program Evaluation, Dissemination and Data Storage

# 3. Plan for Instruction for Enhancing Reproducibility

- Applicants are required to comply with the instructions for **Plan for Instruction in Methods for Enhancing Reproducibility** as provided in the SF424 Application Guide
- Rigor & Reproducibility Resources
  - **NIH Website on Rigor and Reproducibility:** <https://www.nih.gov/research-training/rigor-reproducibility>
  - **Clearinghouse for R25 Training Modules:** <https://www.nigms.nih.gov/training/pages/clearinghouse-for-training-modules-to-enhance-data-reproducibility.aspx>
  - **NIGMS Administrative Supplements:** <https://www.nigms.nih.gov/training/instpredoc/Pages/rigor-rep.aspx>

# 4. Plan for Instruction in the Responsible Conduct of Research (RCR)

- All applications must include a plan to fulfill NIH requirements for instruction in RCR.
  - Five required components must be addressed
  - Components should be well integrated into the overall curriculum at multiple stages of trainee development in a variety of formats and contexts
- Explain how teaching of RCR synergizes with the curriculum designed to enhance trainees' abilities to conduct rigorous and reproducible research.
- Describe how all program faculty will reiterate and augment key elements when trainees are performing research in their labs.
- Applicants are required to comply with the SF424 Application Guide instructions  
RCR Policy: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>  
Resources: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-122.html>



# Faculty, Trainees, and Training Record Section

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

- 7. Participating Faculty Biosketches
- 8. Letters of Support
- 9. NIH Training Tables

# 7. Faculty Biosketches—with personal statement addressing

- 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
- Promoting the use of highest standards of practice to ensure the safety of all individuals in the research environment
- Supporting trainees participating in activities required to identify and transition into biomedical research workforce careers of interest
- Fulfilling the need of the trainees to complete the degree in a timely fashion
- New Format (NOT-OD-21-073): **Failure to follow the appropriate Biosketch format may cause NIH to withdraw your application from consideration.**

# 8. Letters of Support

- Organizational Support Letter (10-page maximum) must be attached as part of Letters of Support
  - The letter must be on organizational letterhead and signed by a President, Provost, Dean or similar key leader that describes the activities and resources provided by the organization that will ensure the success of the planned training program and its trainees.
  - The areas of commitment to be described in the organizational support letter are noted in the NOFO.
  - **If this letter is not included, the application will be considered incomplete and will not be reviewed.**
- Additional letters of support are permitted; however, these letters may not contain any information that is required in the Organizational Support Letter.
- Combine all Letters of Support into a single PDF file.

# 9. Required NIH Training Tables

## Training Instructions For NIH and Other PHS Agencies

Introduction	Date Posted	File Link/Format/Size
Introduction to Data Tables – Read this first!	9/16/2022	<a href="#">MS Word (53 KB)</a> <a href="#">PDF (437 KB)</a>

Data Tables	Date Posted	Blank Data Tables File Link/Format/Size	Instructions and Sample Data Tables File Link/Format/Size
<b>New Applications</b>			
New Predoctoral Training Submit tables: 1, 2, 3, 4, 5A, <del>6A</del> , 8A	9/16/2022	<a href="#">MS Word (40 KB)</a>	<a href="#">MS Word (87 KB)</a> <a href="#">PDF (453 KB)</a>
<b>Renewal or Revision Applications</b>			
Renewal or Revision Predoctoral Training Submit tables: 1, 2, 3, 4, 5A, <del>6A</del> , 7, 8A	9/16/2022	<a href="#">MS Word (43 KB)</a>	<a href="#">MS Word (93 KB)</a> <a href="#">PDF (472 KB)</a>



# NIH Training Tables for Applications

In the Program Plan, applicants should summarize key data from the training tables that highlight the characteristics of the training grant eligible pool, program faculty, organizational support, student outcomes, and other factors that contribute to the overall training environment of the program.

## Required NIH Training Tables

New: 1, 2, 3, 4, 5A, 8A

Renewal: 1, 2, 3, 4, 5A, 7, 8A



Faculty, Trainees and Training Record Section		
7. Participating Faculty Biosketches	<input type="text"/>	<input type="button" value="Add Attachment"/>
8. Letters of Support	<input type="text"/>	<input type="button" value="Add Attachment"/>
9. Data Tables	<input type="text"/>	<input type="button" value="Add Attachment"/>

- **Do not submit Table 6A**
- Instead, use Suggested Format Table A, Suggested Format Table B (if applicable), and upload **Attachment(s)** in the **“Other Project Information”** section

**Applications that do not include the required NIH training tables or that submit additional data tables in the Data Table section will be withdrawn prior to review.**

# NIH Training Tables

TABLE	CONTENT
Table 1	Census of participating departments (# of total and Participating trainers, trainees, other pre/postdocs)
Table 2	Details on Participating faculty (name, rank, dept, research interest, training record)
Table 3	Other federal institutional training grants (T32, T35, R25, K12)
Table 4	Participating faculty research support
Table 5	Trainee publications (organized by mentor)
Table 7	Appointments to the training grant by year ( <b>ONLY IN RENEWALS</b> )
Table 8A	Program outcomes of trainees (support, start/end dates, research topic, initial and current positions (New Application=Part III, Renewal Application=Parts I, II and IV)
<b>Suggested Formats Table A &amp; Table B</b>	Baseline Data on the Trainee Pool: Applied, Admitted, and Matriculated <b>Located in Other Project Information</b>

# NIH Training Table: 6A

- NIGMS does not require Training Table 6A in its Institutional Predoctoral T32 training grant applications (new and renewals).
- If Table 6A is included, the application will be considered noncompliant and may not be reviewed.
- Applicant organizations are encouraged to use Suggested Format Table A for single department program applications and Suggested Format Table A and Suggested Format Table B for applications with multi-departmental or multi-organizational structures.
- For more information about the Data Tables for NIGMS Institutional Predoctoral T32 training programs, please visit the [Predoctoral NIH Data Tables and Suggested Data Formats](#) website.

# Removing Table 6A from your application

- To avoid the inclusion of Table 6A in a training data table set generated via xTRACT, applicants should **omit the "Start year of the most recently completed academic year"** when prompted in the Applicants/Entrants section. (See [FAQ's](#) for more info)
- The resulting PDF will then exclude Table 6A.

Prepare Research Training Dataset (RTD) for New Application

New RTD	419 The Effects of Romulan Ale on Senior Staff
PD/PI	Rhoades, Dusty

**Applicants and Entrants** ⓘ

Start year of the most recently completed academic year:

*The Pre-doc and Post-doc data may be edited via the links below, once the Start of the most recently completed academic year has been provided.*

[Pre-Doc Applicants and Entrants](#)  
[Post-Doc Applicants and Entrants](#)



# Baseline Data on Trainee Pool

- NIGMS no longer requires Training Table 6A in its Institutional Predoctoral T32 training grant applications.
- Although Table 6A is not required, all applicants must provide the number and average for the past five academic years of the training grant eligible candidates who applied to, were admitted to, and matriculated into the training program or department described in the application.
- Applicants are encouraged to use Suggested Format Table A for single department applications and both Suggested Format Table A and Suggested Format Table B for applications with multi-departmental or multi-organizational structures. The Suggested Formats Tables are found on the NIGMS website.





# Resources

- **NIGMS Predoctoral Research Training Grant Website:**  
<https://www.nigms.nih.gov/Training/InstPredoc/Pages/default.aspx>
- **Predoctoral Training Grants FAQs:**  
<https://www.nigms.nih.gov/training/instpredoc/Pages/predoctoral-training-grants-faqs.aspx>
- **NIGMS T32 Staff:**  
<https://www.nigms.nih.gov/training/instpredoc/pages/PredocDesc-Contacts.aspx>

# Resources (continued)

- **NIGMS Informational Videos: How to Complete NIH Training Tables**  
<https://www.nigms.nih.gov/Training/InstPredoc/Pages/default.aspx>  
<https://www.nigms.nih.gov/training/instpredoc/Pages/predoc-nih-data-tables-data-formats.aspx>  
<https://nigms.nih.gov/training/instpredoc/Pages/predoc-training-grants-faqs.aspx>
- **T32 Data Tables--Forms H & Instructions**  
<http://grants.nih.gov/grants/funding/424/datatables.htm>
- **FAQs:** [https://grants.nih.gov/grants/forms\\_updates\\_faq.htm](https://grants.nih.gov/grants/forms_updates_faq.htm)
- **xTRACT User Guide and Resources:**  
[https://era.nih.gov/modules\\_user-guides\\_documentation.cfm](https://era.nih.gov/modules_user-guides_documentation.cfm)
- **xTRACT videos:** [https://era.nih.gov/era\\_training/era\\_videos.cfm](https://era.nih.gov/era_training/era_videos.cfm)

# xTrain For Student Appointment

- All trainees **must** have an appointment form submitted through the eRA Commons to xTrain before they may receive their compensation.
- **Appointments are normally made in 12-month increments.**
- If a trainee cannot continue in the grant program for the full appointment period, a termination notice must be submitted to xTrain with the correct appointment period.
- For all appointments, a termination notice must be submitted at the end of the appointment period.

xTrain Web Page - application guide, quick reference sheets, FAQs, training materials: [https://era.nih.gov/services\\_for\\_applicants/other/xTrain.cfm](https://era.nih.gov/services_for_applicants/other/xTrain.cfm)

# Important Dates

Due Dates	Scientific Merit	Advisory Council	Earliest Start
January 25, 2024	June 2024	October 2024	July 2025
May 25, 2024	November 2024	January 2025	July 2025
September 25, 2024	March 2025	May 2025	July 2026
January 25, 2025	June 2025	October 2025	July 2026
May 25, 2025	November 2025	January 2026	July 2026
September 25, 2025	March 2026	May 2026	July 2027
January 25, 2026	June 2026	October 2026	July 2027
May 25, 2026	November 2026	January 2027	July 2027
September 25, 2026	March 2027	May 2027	July 2028

# Important Dates (continued)

Earliest Start Date	Submission Deadlines
July 2025	January 25, 2024
July 2025	May 25, 2024
July 2026	September 25, 2024
July 2026	January 25, 2025
July 2026	May 25, 2025
July 2027	September 25, 2025
July 2027	January 25, 2026
July 2027	May 25, 2026
July 2028	September 25, 2026



# Advice for Applying

- Submit early—at least two days before the deadline
- Always review your application and check for completeness  
There is a two-day reviewing period
- Correct any errors and address all warnings
  - Note that not all failures to comply are caught by the automated notification

<https://grants.nih.gov/grants/how-to-apply-application-guide/submission-process/submit-track-view.htm>

# Budget Overview

# 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 and the institutional allowance 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](#).

# Trainee Travel

- NIGMS will provide **up to \$300** per trainee for travel.
- Trainees must be appointed to the training grant at the time of the actual travel for this to be an allowable cost.
- Plans for trainee travel should be well justified.

# Training Related Expenses

- NIH will provide funds to help defray other research training expenses, such as health insurance, staff salaries, consultant costs, equipment, research supplies, and faculty/staff travel directly related to the research training program.
- The most recent levels of training related expenses 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](#).



# Peer Review

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Scientific Review  
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# Peer Review

Questions? Contact us!

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# Disclaimer

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This webinar and accompanying slides are for informational purposes only. They serve as an overview of the review of T32 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 NOFOs and any Related Notices (included in the FOA's Overview Information section), and the SF424 Application Guide.**

# T32s Reviewed by Two Committees

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- TWD-A (Dr. Isaah Vincent) & TWD-B (Dr. Latarsha Carithers)
- 15 study section members each
- Strong focus on Graduate/Medical Scientist Training
- Span the range of program expertise
- Geographic distribution
- Diversity and gender distribution
- Supplemented with temporary members to augment expertise
  - Volunteer! See our new volunteer portal at:  
<https://correspondence.nigms.nih.gov/IRGReviewerVolunteers>





# Peer Review Cont.

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- The roster for the review meetings will both be available under TWD-A and TWD-B at:  
[www.nigms.nih.gov/Research/application/Pages/reviewcommittees.aspx](http://www.nigms.nih.gov/Research/application/Pages/reviewcommittees.aspx)
- Committees are equivalent: applications assigned to one of two committees to balance conflicts and workload.
- Receipt letter from scientific review officer will provide information about meeting dates, instructions for providing updates, and a link for the committee roster.
- Scores and summary statements accessed through PI's eRA Commons account.



# Review Process: Usual Timeline

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## 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

Post review- reach out to your PO for next steps

# Peer Review

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- Please read the review criteria while preparing your application to make sure all the required information is included.
- Review panel will assess your application against the review criteria.
- **All from Section V under Application Review Information**

# Formatting Tips

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## Check Application

- Allow enough time to carefully check application after submission. We cannot accept any missing items after the receipt deadline.

## 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.

**Other Attachments:** Fewer attachments

**Supplemental Materials:** Please see supplemental Material Policy

# Other attachments: Shortened!

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- **Required: (New...ish) Baseline Data on Trainee Pool**
  - Trainee Characteristics: Suggested format: <https://www.nigms.nih.gov/training/instpredoc/Pages/predoc-nih-data-tables-data-formats.aspx>
  - **(NEW)** Multi-Component Program Data
- **Required:** Recruitment Plan to Enhance Diversity (3-page max)
- **Optional:** Advisory Committee (if one is intended for the program, 1-page max)
  - To avoid conflicts in the review process, **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.
- **Optional: (NEW) Training Activities (10 Page maximum):** brief descriptions of required and representative elective courses, workshops, and training activities
- **(REMOVED): DO NOT INCLUDE:** ~~Trainee Retention Plan, Outcomes Data Collection and Storage Plan, Dissemination plan~~

# Appendix: Optional and Shortened!

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- Only allowable Appendix materials (the Appendix is also Optional) :
  - **Blank data collection forms, blank survey forms, and blank questionnaire forms** - or screenshots thereof
  - Simple lists of interview questions (for evaluations and behavioral research **NOT** trainee application interviews)
  - Blank informed consent/assent forms
  - Other items only if they are specified in the
  - **Note: In your blank forms and lists, do not include items such as: data, data compilations, lists of variables or acronyms, data analyses, publications, manuals, instructions, descriptions or drawings/figures/diagrams of data collection methods or machines/devices.**
  - NOFO as allowable appendix materials
- No other items are allowed in the Appendix. Applications will be withdrawn and not reviewed if they do not follow the appendix requirements in these instructions





# Tables

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- All new applications are required to have tables 1-5 and 8A (part III only).
- Renewal applications must also have table 7.
- Trainee Characteristics: Suggested Format A replaces old Table 6.  
**Do not include Table 6 or your application will be withdrawn.**
- **Table 8**
  - For new applications, part III allows up to 5 years of outcomes data, but your application can include up to 15 years of outcomes in the text program plan for your previous or existing training programs
  - For current programs, Table 8 part I & II: 15 years of outcomes

# Supplemental Material [NOT-OD-19-083](#)

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## Optional

- Will accept up to 30 days before review meeting
- 1 page of updates for each allowable material
- 3 pages for list of publications
- Student biosketches (no page limit)



# Review Criteria

# Scored Review Criteria

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## Training Program and Environment (Most expansive)

- Rationale, Mission, and Objectives
- Curriculum and Overall Training Plan
- Career Development
- Program Oversight, Participating Faculty Selection, and Mentor Training
- Organizational and Departmental Commitment to the Program


## Training Program Director/Principal Investigator

- MPI: add additional information on leadership plan/roles conflict resolution and why MPI plan benefits program/trainees

## Preceptors/Mentors

## Trainees (**Revised**)

## Training Record (**Revised**)

- Training Outcomes (renewals) or Training Grant Eligible Pool (new applications)
  - Program Evaluation, Dissemination, and Data Storage
- 

# Substantially Revised Review Criteria

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## Trainees

- Candidate Review Process
- Trainee Appointments and Financial Support

## Training Record:

- Trainee Outcomes
- Program Evaluation Plan, **Dissemination, and Data Storage**





# Review Criteria Continued

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## Additional Review Criteria:

Overall Score Impacting but do not receive individual scores  
(given acceptable/unacceptable)

- Resubmissions
- Renewals
- Training in Methods for Enhancing Reproducibility
- Recruitment Plan to Enhance Diversity
- Training in the Responsible Conduct of Research
- Protection of Human Subject (Generally not applicable)
  - Inclusion of Women, Minorities, and Individuals Across the Lifespan
- Vertebrate Animals (Generally not applicable)
- Biohazards (Generally not applicable)
- ~~Revisions (NOT APPLICABLE)~~



# Renewals

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Only for applications who were initially funded under PAR-17-341 or PAR-20-213


## ***Implementation of Proposed Activities***

- Successful implementation of activities? Yes/no and if not is it reasonable why not?
- Evolution of the program in response to scientific knowledge and educational practice?

## ***Results and Discussion from Program Evaluations***

- Identification of any shortcomings
- Meeting their state goals
- Identification of successes and challenges in outcomes
- Respond to student feedback

## ***Impact and Dissemination***

- Provided Evidence of impact
  - Dissemination of outcomes and effective practices to the public/wider training community
- 

# Recruitment Plan to Enhance Diversity

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- Is the recruitment process responsive to the Baseline Data on the Trainee Pool?
- Does the training program's recruitment plan describe effective strategies to reach a broad range of potential trainees that are program-specific and go beyond organizational recruitment efforts?



# Additional Review Considerations

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Will not be given individual scores and will not be considered in the overall impact score. Deemed acceptable/unacceptable and will need to be resolved prior to funding

- Budget and Period of Support (# of slots)
- Select Agents (Generally not applicable)



# Application Preparation Problems

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- Institutional Support Letter
  - **ONE** letter signed by a senior institutional official
  - Other letters of support are allowed but suggest limiting them and these letters **MUST NOT** contain any info required in the Institutional Support Letter
- Appendix issues
  - **Follow new instructions**
  - Evaluation forms: Do not include data or “example” filled out forms
- Post submission materials:
  - Pre-prints are unallowable





# Application Tips

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## Content

- Read the program announcement and ensure that your application contains the necessary elements.
- Successful submission through Grants.gov and eRA Commons does not mean appropriate responsiveness to and compliance with the program announcement.

# Application Tips

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## Comprehensive

- Address all requirements of the program announcement.
  - For example:
    - If you don't have institutional baseline data, explain how you plan to obtain it.
    - New programs, 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, if you have one? How often do they meet?
    - How have you used evaluation information in designing/improving your program?



# Application Tips Cont.

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## Clear

- Don't bury important information.
- Don't expect reviewers to “read between the lines” to figure out what you are proposing.
- 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.

# Application Tips Cont.

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## Current

- Make sure faculty biosketches are up-to-date, in correct format, and relevant for training program (including statement of commitment to training and diversity)
- 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

# New and Smaller Program Tips

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- *There are no secrets in peer review:* All the criteria are in Section V.
- With new and smaller programs, please reach out to the SROs and Program officers at NIGMS
  - SRO: Help explain intricacies of the application instructions and generalized review insights
  - Program Officers: Structure and program goals and if funded, program performance and reporting
- Understand that the NIGMS BBM predoc T32 NOFO substantively differs from the Parent T32 NOFO
  - You will notice the extensive expansion of criteria focused on those aspects of the trainee experience.
- Time and commitment to the program, while not totally free, is crucially important
  - Big and small programs can run afoul of this. PI/MPI and participant faculty should have demonstrated time committed to the program and the trainees





# Problem Areas

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## Program Evaluation

- Consider reaching out to colleagues with evaluation experience + other resources. FOA does not specify a dedicated evaluator, but should be a person without conflict
- Discuss both short- and long-term evaluation goals. Performance and outcomes of the Students AND the program
- Evaluation information on the TWD training resource page: <https://www.nigms.nih.gov/training/Pages/Training-Resources.aspx>
- **NEW:** TWD Webinar on Evaluation and program assessment: <https://loop.nigms.nih.gov/2022/06/twd-webinar-on-program-assessment-and-evaluation/>

## Recruitment Plan to Enhance Diversity

- Is it responsive to the baseline data for the program? Are there program specific activities beyond the organizational recruitment efforts?

## Training in Methods for Enhancing Reproducibility (NOT-GM-19-026)

- Integrated throughout the program

## RCR

- Remember there are **5 areas of assessment:** Format, Subject Matter, Faculty Participation, Duration (at least 8 contact hours), and Frequency (at least once every four years)
- Integrated throughout the program



# Questions and Contacts

## Scientific/Research Contact

Mercedes Rubio ([rubiome@mail.nih.gov](mailto:rubiome@mail.nih.gov))

## Financial/Grants Management Contact

Brett Hodgkins ([Hodgkins@mail.nih.gov](mailto:Hodgkins@mail.nih.gov))

## Peer Review Contact

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