

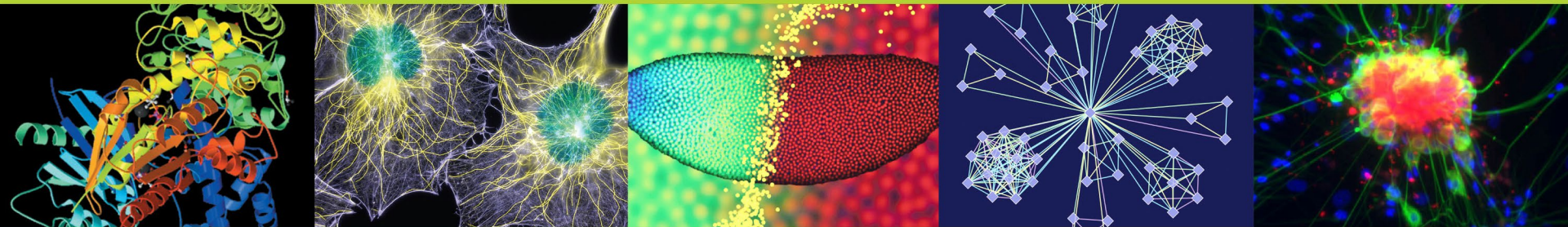


National Institute of  
General Medical Sciences



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

## Informational Webinar for Prospective Applicants December 6, 2022



# Before We Start

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- This webinar video and slides will be available online.
- You may type your questions in the Q&A box throughout the webinar.
- If time permits, there will be an open Q&A period at the end of the webinar.

# Webinar Outline

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**Program Perspective** – Goals & Eligibility, Overview of Program, Application Components

- Mercedes Rubio, LEAD MSTP Program Officer



**Review Perspective**

- Latarsha Carithers, Scientific Review Officer



**Grants Management Perspective**

- Brett Hodgkins, Grants Management Team Leader



# **\*\*Disclaimer\*\***

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

**Applicants can also use the [Reference FAQ](#) page on the program webpage for additional information.**

# Goal of the LEAD MSTP

To develop a diverse pool of highly trained clinician-scientist leaders available to meet the Nation's biomedical research needs by providing support for dual-degree clinician scientist training at institutions that have historically not been well represented among NIGMS-funded MSTPs.

This program provides support to eligible domestic institutions to develop and implement effective, evidence-informed approaches to fully integrate the transitional phases of dual-degree training and mentoring that will lead to the completion of both clinical degrees (e.g., M.D., D.O., D.V.M., D.D.S., Pharm.D., etc.), and research doctorate degrees (Ph.D.) and keep pace with the rapid evolution of the biomedical enterprise.

# Eligible Organizations

## Single Institution Programs:

- The applicant institution must be a higher education institution located in the United States and/or its territories that falls within at least one of the following categories:
  - Historically Black Colleges and Universities (HBCUs), (i.e., institutions described in [section 4\(b\)](#) of [Executive Order 14041](#) (incorporating by reference the institutions listed in 34 C.F.R. 608.2)),
  - Tribal Colleges and Universities (TCUs), (i.e., institutions described in [section 5\(e\)](#) of [Executive Order 14049](#))
  - Institutions in an [IDeA state or territory](#) - Alaska, Arkansas, Delaware, Hawaii, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Vermont, West Virginia, Wyoming, and Puerto Rico
- Has an accredited clinical degree granting program (e.g., M.D., D.O., D.V.M., D.D.S., Pharm.D., etc.)
- Awards Ph.D. degrees in the biomedical sciences
- Does not currently have an NIGMS-funded [Medical Scientist Training Program](#)

# Eligible Organizations

## Partnerships:

Partnerships are encouraged and must have the following:

- The applicant institution must be an HBCU, TCU or institution in an IDeA state or territory (defined previously)
- Each partner must be a higher education institution located in the United States and/or its territories
- The applicant institution must have an accredited clinical degree granting program (e.g., M.D., D.O., D.V.M., D.D.S., Pharm.D., etc.)
- One of the institutional partners must award Ph.D. degrees in the biomedical sciences
- The applicant institution may not have an NIGMS-funded [Medical Scientist Training Program](#)

The applicant and partner institution(s) must assure support for the proposed program. Appropriate institutional commitment to the program should be detailed in the Institutional Support Letter in the **Letters of Support** attachment.

# Research Training Program Considerations

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Leverage institutional support and resources.

Programs are expected to:

Incorporate didactic, research, mentoring, and career development elements to prepare clinician scientists with the technical, operational, and professional skills required for the translation of scientific research findings into clinical practice.

Programs provide:

Offset for the cost of appointed trainee stipends, tuition and fees, and training related expenses, including health insurance, travel support.



# Major Themes in NIGMS Training Programs

- **Trainee skills development** – use evidence-based approaches to provide technical, operational and professional skills
- **Specific Aims** - obtainable and measurable training objectives that optimize the time to earn dual degree and fully integrate the transitional phases of the dual-degree training
- **Rigor & transparency, responsible & safe conduct** of research throughout the training experience
- **Commitment to diversity & inclusion**
- **Promote a culture of safety**
- **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 institutional support** for research training
- **Evaluation** - the collection and dissemination of data on the success/failure of educational aims; make career outcomes publicly available

Technical

Operational

Professional

Methods  
&  
Technology

Quantitative  
&  
Computational

Acquiring Information,  
Experimental Design  
&  
Data Interpretation

Management  
&  
Leadership

Communication  
&  
Teamwork

# Eligibility Information - *Program Director (PD) / Program Investigator (PI)*

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- The contact PD/PI is expected to have a regular full-time appointment (i.e., not adjunct, part-time, retired, or emeritus) at the applicant institution, unless extremely well-justified
- Multiple PDs/PIs are encouraged
- Applications with partnerships are encouraged to include a PD/PI from each participating institution.

# Who is Training Eligible?

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- Must be a citizen, non-citizen national or permanent resident of the U.S.
  - Deferred Action for Childhood Arrivals (DACA) students are not eligible
- Matriculated as a **full-time combined clinical degree student** at the applicant institution or at the partnering institution

# Webinar Outline

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

# First Step in Preparing an Application

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Read the FOA, Related Notices, and the Training (T) Instructions in the [SF424 \(R&R\) Application Guide](#) thoroughly

Applications due on or after January 25, 2023 ([NOT-OD-22-195](#)) must use **FORMS-H** application package

Check the FOA for Additional Required Items

# Common Application Pitfalls

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## [NIGMS Feedback Loop on January 13, 2022](#)

**Letters of support:** Special care should be paid to the type of letter, the number needed, and any specific language or signatures that must be included for each participating institution.

**Training data tables:** Each FOA specifies a required set of [tables](#) that must be included with the application.

# Common Application Pitfalls, contd

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**Multiple program directors (PDs)/principal investigators (PIs):** If your program will involve multiple PDs/PIs (MPIs) as key personnel—follow the [SF424 \(R&R\) application guide](#). All PDs/PIs in an MPI application must be assigned the “PD/PI” role and all MPI applications must include a [multiple PD/PI leadership plan](#).

**Appendix materials and page limits:** We receive many applications that are either missing required materials, include unallowable materials, or exceed the page limits allowed under FOA instructions for the appendix section.

# The Application- Page Limits

Section of Application	Page Limit
<b>Project Summary/Abstract</b>	<b>30 lines of text</b>
<b>Program Plan</b>	<b>25</b>
<b>Advisory Committee (optional)</b>	<b>1</b>
<b>Recruitment Plan to Enhance Diversity</b>	<b>3</b>
<b>Trainee Retention Plan</b>	<b>3</b>
<b>Outcomes Data Collection and Storage Plan</b>	<b>2</b>
<b>Dissemination Plan</b>	<b>1</b>
<b>Plan for Instruction in Methods for Enhancing Reproducibility</b>	<b>3</b>
<b>Plan for Instruction in the Responsible Conduct of Research</b>	<b>3</b>
<b>Each Biographical Sketch</b>	<b>5</b>
<b>Institutional Support Letter</b>	<b>10</b>
<b>Required Training Activities</b>	<b>2 per activity</b>
<b>Responsible Conduct of Research Syllabi</b>	<b>2 per activity</b>
<b>Elective Activities (optional)</b>	<b>2 per activity</b>
<b>Conflict Resolution Protocols (optional)</b>	<b>3</b>
<b>Evaluation and Assessment Instrument (optional)</b>	<b>Unspecified limit in FOA</b>



# Research Training Program Plan Form

View Burden Statement

PHS 398 Research Training Program Plan

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

Multiple Sections,  
Each with several attachments:

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"/>
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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"/>
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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="button" value="Add Attachments"/> <input type="button" value="Delete Attachments"/> <input type="button" value="View Attachments"/>		

Training Program Section

Faculty, Trainees and Training Record Section

Appendix

# Training Program Section

[View Burden Statement](#)

**PHS 398 Research Training Program Plan**

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

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Appendix			
13. Appendix	<input type="text"/>	<a href="#">Add Attachments</a>	<a href="#">Delete Attachments</a> <a href="#">View Attachments</a>

## Training Program Section

2. Program Plan
3. Plan for Instruction in RCR
4. Plan for Instruction in Methods for Enhancing Reproducibility
5. Multiple PD/PI Leadership Plan (if applicable)

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

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- 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)
- Application Process, Trainee Positions, Retention and Support
- Training Outcomes
- Program Evaluation and Dissemination

# Rationale, Mission & Objectives

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- How the program will **enhance the training environment** beyond just financial support of trainees
- Justification for the program
  - Current institutional efforts to promote diversity and create inclusive training environments, and how the program will enhance, but not duplicate, these efforts
- Describe the **current research training environment** & areas for improvement
- Training mission, **objectives (specific, measurable)**
  - Informed by baseline data, trainee pool and institutional context
  - Among objectives should be dual-degree completion rates, Time-to-Degrees and full integration of transition phases that will lead to the completion of both clinical and research doctoral degrees

# Curriculum and Overall Training Plan

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- How the courses, structured activities, and research experiences will **accomplish the training mission** and objectives
- Proposed changes to current research training practices to **keep pace with the rapidly evolving biomedical research enterprise** (e.g., curricular reforms, incorporation of additional quantitative and computational skills development, etc.)
- Mechanism for ensuring that the trainees are learning the **highest standards of practice** (e.g., record keeping, safety)
- How **laboratory safety** is taught throughout the didactic and mentored portions of the program
- The use of **evidence-informed approaches** to trainee learning, mentorship, inclusion, and professional development
- Activities that will build a **strong cohort** of research-oriented individuals while enhancing the science identity, self-efficacy, and a sense of belonging

# Curriculum and Overall Training Plan, contd.

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- Representative **examples of training programs** for individual trainees
- The trainees' academic and research **background needed** to pursue the proposed training and plans to accommodate differences in preparation among trainees
- How the training **activities will be available to other trainees** in the program(s), department(s) or institution(s) from which the supported trainees are drawn
- If applicable
  - For multi-institutional programs, how are the components of the program well integrated and coordinated?
  - The ways the training plan is distinct from, but will share resources and synergize with, other NIGMS-funded predoctoral training programs at the same institution

# Career Development

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- How applicants/trainees will be provided with information about
  - **career outcomes** of graduates of the program and the overall biomedical research workforce landscape
  - **variety of careers** for which their training would be useful
- Experiential learning opportunities
  - e.g., internships, shadowing, informational interviews, teaching opportunities
- Engaging a range of potential employers so trainees have the skills, knowledge & steps to attain positions of interest in the biomedical research workforce

# Program Oversight, Participating Faculty Selection, and Mentor Training

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Should include:

- the planned strategy and **administrative structure** to oversee and monitor the program and to ensure appropriate and timely trainee progress
- how **faculty are trained** to use evidence-informed teaching, training and mentoring for trainees from all backgrounds
- 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 & Departmental Commitment

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Describe how the level of institutional and departmental commitment to research and training excellence will promote the success of the trainees and training program.

May use this section to expand on Facilities & Other Resources and Letters of Support

# Program Director(s)/Principal Investigator(s)

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- Expertise as well as administrative and training experience
- Time to commit sufficient effort given other professional obligations
- Demonstrated commitment to training the next generation of biomedical research workforce
- Received training to mentor individuals from diverse backgrounds
- Applications with partnerships are encouraged to include a PD/PI from each participating institution. Include a Multiple PD/PI Leadership Plan
- The application should describe the administrative structure and leadership succession plan for critical positions

# Preceptors/Mentors (Participating Faculty)

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Create a **diverse team** - *for example*: underrepresented backgrounds, women, different career stages

- Have sufficient time to commit
- Receive training in evidence-informed teaching and mentoring practices
- Promote the use of highest standards of practice to ensure the safety of all
- Cooperate, interact, and collaborate
- Promote the development of skills in rigorous experimental design, methods of data collection, data analysis and interpretation, and reporting
- Provide opportunities for trainees to initiate, conduct, interpret, and present rigorous, reproducible and responsible biomedical research with increasing self-direction
- Demonstrate a commitment to effective mentoring, and to promoting inclusive, safe and supportive environments
- Are evaluated as teachers and mentors

# Application Process

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- Describe the admissions data provided in the required Application and Admissions Data Attachment (Other Attachments).
- Expand upon the required Recruitment Plan to Enhance Diversity (Other Attachments). Ensure a diverse pool of candidates that could strongly benefit from and succeed in the program with proper support.
- Describe the plans for a candidate review process for a broad group of trainees, a process that considers metrics beyond undergraduate institution, GPA, and standardized test scores.
- If the training program does not conduct its own recruitment and admissions of the dual degree students entering the university - and instead appoints students who were admitted by university departments, other graduate programs, or clinical programs provide a strong rationale for taking this approach.

# Trainee Positions

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- Describe **how large the program will be across all cohorts** (i.e., the total number of individuals enrolled in the proposed program ranging from the entering cohort to those nearing graduation).
- Provide a **strong justification for the number of requested slots** per year in the context of the training grant eligible pool, the size of the proposed program, the number of participating faculty, and other NIGMS-funded training grants at the institution.
- Explain the **proposed training grant support structure**, i.e., how many individuals (e.g., 4 per year), at what stage (e.g., first-year entrants), and for how long (e.g., for 2 years).
- Define and justify the selection and re-appointment criteria for the training grant supported trainees in the program.

# Retention and Support

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- May use this section to expand upon the required Trainee Retention Plan (Other Attachments)
- Provide evidence of the program's commitment to ensuring the **well-being and success of all trainees** throughout their graduate training.
- Describe the ability for participating department(s) and/or the institution(s) to support trainees for the **duration of their graduate careers**.

# Training Outcomes - Should Match the Training Tables

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Provide recent outcomes through narrative the required [training tables](#). Training tables allow for 5 years of recent outcomes for new applications; the application may describe up to 15 years of outcomes in the narrative. The application should describe:

- Evidence that recent program graduates conducted **rigorous research that advanced scientific knowledge** and/or technologies, with increasing self-direction (e.g., peer-reviewed publications in [Training Table 5A](#), or other measures of scientific accomplishment appropriate to the field)
- The rate of **dual degree attainment and time-to-degree** for recent graduates ([Training Table 8A](#)). Explain how the time-to-degree was calculated. Indicate how many individuals obtained dual degrees, are still in training, left the program or withdrew from the program with no degree
- A description or analysis of how the dual degree attainment, time-to-degree data, and evidence of scholarly productivity for recent program graduates compare across demographic groups
- The success of recent graduates transitioning to careers in the biomedical research workforce ([Training Table 8A](#)).

# Program Evaluation and Dissemination

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Programs must conduct ongoing evaluations to monitor success of the program. Describe:

- Process to determine **whether the overall program is effective** in meeting its mission and objectives, and whether the scientific research climate is inclusive, safe, and supportive of trainee development
  - Optional: blank Evaluation and Assessment Instruments in Appendix
- Plans for **being responsive to outcomes analyses**, critiques, surveys and evaluations
- Past activities to **track and post the career outcomes** of trainees
- Past activities designed to **share the outcomes** of the training or mentoring interventions with the broader community



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

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- 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.
- See requirements detailed in the FOA and the SF424 Application Guide.

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>

## 4. Plan for Instruction in Methods for Enhancing Reproducibility

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- The plan must describe how trainees will be instructed in principles important for enhancing research reproducibility.
- Describe how instruction strategies are well integrated into the overall curriculum, that is, how they are taught at multiple stages of trainee development and in a variety of formats and contexts.
- See the SF424 Application Guide for instructions.
- 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>

# Faculty, Trainees, and Training Record Section

[View Burden Statement](#)

PHS 398 Research Training Program Plan

OMB Number: 0925-0001  
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13. Appendix	<input type="text"/>	<a href="#">Add Attachments</a>	<a href="#">Delete Attachments</a> <a href="#">View Attachments</a>

## Required

7. Participating Faculty Biosketches

8. Letters of Support

9. NIH Data Tables

## 7. Faculty Biosketches - *with personal statement addressing*

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- 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 dual-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

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- Institutional Support Letter (10 page maximum) **must** be attached as part of Letters of Support
  - See detailed example components in the FOA

**If this letters are not included, the application will be considered incomplete and will not be reviewed.**

*Other Letters of Support:* Additional letters of support are permitted; however, these letters may not contain any information required in the Institutional Support Letter.

Combine all Letters of Support into a single PDF file.

# 9. Data Tables

Helpful Information before you fill out your Data Tables:

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
New Applications		MS Word (40 KB)	MS Word (87 KB) PDF (453 KB)



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

# Required Data Tables for New Applications

Table	Title of Table
1	Census of Participating Departments and Interdepartmental Programs
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
5A	Publications of Those in Training: Predoctoral
8A Part III	Program Outcomes: Predoctoral, Recent Graduates

## ★ Do not submit Table 6A

- In the Program Plan, applicants should also summarize key data from the tables that highlight the characteristics of the applicant pool, program faculty, institutional support, student outcomes, and other factors that contribute to the overall training environment of the program
- Applications that do not include these data tables or that submit additional data tables in the section will be withdrawn prior to review

# 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:

[Submit](#)

*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](#)



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

## Required

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

## Allowable

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

Applications that do not include the required appendices or that exceed the number of allowed appendices or the page limitation of any of the allowed materials will be considered noncompliant and will not be reviewed.

# 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

- Application and Admissions Data
- Recruitment Plan to Enhance Diversity (3 pages)
- Trainee Retention Plan (3 pages)
- Outcomes Data Collection and Storage Plan (2 pages)
- Dissemination Plan (1 page)

### Optional

- Advisory Committee (1 page)

*Name these files as indicated in the FOA.*

# Application and Admissions Data

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- Allows for the evaluation of the ability of participating departments/interdepartmental programs to **recruit** training grant eligible individuals
- To assess the **admissions** and recruitment process, the **diversity** of the pool, and the appropriate **number** of training positions to be awarded
- 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
- Please use the [Suggested Table Format Table A](#) provided on the NIGMS website and report on the categories listed in [NIH's Interest in Diversity](#)

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

# Application and Admissions Data

NIGMS recommends using **Formats Table A** for applications with:

## Single departmental programs

Instructions and examples: [Word](#) | [PDF](#) | [HTML](#)

No instructions, blank: [Word](#) | [PDF](#) | [HTML](#)

## Interdisciplinary programs with multiple admissions

Instructions and examples: [Word](#) | [PDF](#) | [HTML](#)

No instructions, blank: [Word](#) | [PDF](#) | [HTML](#)

**Sample: Suggested Format Table A, Part Ia: Numbers and Characteristics of Applicants**

Ac Yr	Total Applicants	URM	Applicants with Disabilities	Applicants from Disadvantaged Backgrounds	Women	Institutionally Defined
2014-15	399	80	20	72	239	n/a
2015-16	384	77	19	69	230	n/a
2016-17	489	98	24	88	293	n/a
2017-18	342	68	17	62	205	n/a
2018-19	438	88	22	79	263	n/a
<b>Avg</b>	<b>410</b>	<b>82</b>	<b>21</b>	<b>74</b>	<b>246</b>	<b>n/a</b>

Ac Yr, Academic Year; URM, Underrepresented Racial & Ethnic Minorities; n/a, not applicable; Avg, average

# Recruitment Plan to Enhance Diversity (3 pages)

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- 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 is not sufficient
- Accommodation is not the same as outreach or active recruitment of students with disabilities

Potential effective strategies:

<https://www.nigms.nih.gov/training/diversity/pages/approaches.aspx>

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

# Trainee Retention Plan (3 pages)

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- Describe efforts to sustain the scientific interests & academic and research progress 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 are not sufficient

Resources:

<https://www.nigms.nih.gov/training/diversity/pages/approaches.aspx>

<https://extramural-diversity.nih.gov/building-participation/recruitment-retention>

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

## Outcomes Data Collection and Storage Plan (2 pages)

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- 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.
- Encouraged to make the aggregate outcome data available on the institution's website.
- A strategy to ensure the secure storage and preservation of program data and outcomes (i.e., centralized, safeguarded, and retrievable during leadership changes).

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

# Dissemination Plan (1 page)

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- A specific plan **must** be provided to disseminate nationally any findings resulting from or materials developed under the auspices of the 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

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



## Advisory Committee (1 page maximum) *Optional*

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- An Advisory Committee is not a required component of a training program
- Describe how the Advisory Committee will assess the overall effectiveness of the program
- If an Advisory Committee is intended, the roles, responsibilities, and desired expertise of committee members, frequency of committee meetings, and other relevant information should be included
- Advisory Committee members **should not be identified** or contacted prior to receiving an award

# Budget Overview

# Budget - Participants

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- Support is allowed for **clinician scientist students** in the form of **stipend**.
- Trainees may be appointed the grant for **three or more years** of the dual-degree program (note that NRSA support is limited to 6 years for dual-degree training).
- Students may not concurrently hold another federally sponsored award that duplicates LEAD MSTP support.

# Stipends, Tuition, and Fees

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- 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.

# Trainee Travel

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- 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 travel **outside the continental United States**, **\$1,250** for travel per trainee will be provided.

# Training Related Expenses

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- TRE that may be requested is limited to a maximum of \$8,400/trainee/year.
- TRE funds may be used for costs associated with skills development training activities; seminar speakers; and with training or mentoring interventions.
- Limited program evaluation costs (typically up to \$3,000 for the 5-year training grant period).
- Other program-related expenses may be included within the budget for training-related expenses.

# Personnel Effort

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- 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

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- All participants **must** have an appointment form submitted through the eRA Commons to xTrain before they may receive their compensation.
- If a participant 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)

**Appointments are normally made in 12-month increments.**



# Webinar Outline

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

# 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.

# Peer Review Cont.

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- LEAD MSTP applications are reviewed by one of two standing NIGMS review committees: TWD-A and TWD-B. [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.

# Peer Review Cont.

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## All from PAR Section V under Application Review Information

### Scored Review Criteria:

- Training Program and Environment
- Training Program Director(s)/Principal Investigator(s)
- Preceptors/Mentors (Participating Faculty)
- Application Process, Trainee Positions, Retention, and Support
- Training Record

### Additional Review Criteria: Acceptable/Unacceptable (part of Overall Impact score but no separate scores given)

- Training in Methods for Enhancing Reproducibility
- Recruitment Plan to Enhance Diversity
- Training in the Responsible Conduct of Research

### Additional Review Considerations (not scored or factored into a score):

- Budget and Period of Support (# of trainee slots)

# 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.

# Application Preparation 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.

## Context

- Present the institutional framework and environment of your program.
- Be realistic in your program's goals.

# Application Preparation Tips Cont.

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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.
    - 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 Preparation 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 Preparation 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

# Common Pitfalls

- Appendix violations: Required documents not included, additional documents included, page limit violations.
- Training Tables: Required Training Tables not included, additional Training Tables included.
- NIGMS Feedback Loop Post on noncompliance
  - <https://loop.nigms.nih.gov/2022/01/nigms-institutional-t32-t34-and-k12-grant-applicants-dont-get-caught-with-noncompliance/>

# 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

# Important Dates

Application Due Dates	Review and Award Cycles		
New	Scientific Merit Review	Advisory Council Review	Earliest Start Date
February 10, 2023	July 2023	October 2023	December 2023
January 25, 2024 *	July 2024	October 2024	December 2024
January 27, 2025	July 2025	October 2025	December 2025

\*NIH [standard due dates](#)

Submit by 5:00pm applicant's local time

Submit early to allow adequate time to correct errors found during the electronic submission process

AIDS Receipt Dates: Not Applicable

# Contacts

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## **Scientific/Research Contact(s)**

Mercedes Rubio

Email: [RubioME@mail.nih.gov](mailto:RubioME@mail.nih.gov)

## **Peer Review Contact(s)**

Latarsha Carithers

Email: [Latarsha.Carithers@nih.gov](mailto:Latarsha.Carithers@nih.gov)

## **Financial/Grants Management Contact(s)**

Brett Hodgkins

Email: [hodgkinsb@mail.nih.gov](mailto:hodgkinsb@mail.nih.gov)

# Questions

