Undergraduate Research Training Initiative for Student Enhancement (U-RISE) (T34) & Maximizing Access to Research Careers (MARC) (T34)

Prospective Applicant Webinar - April 15, 2021
Before We Start

- **This webinar is being recorded** and will be available online. The slides will also be posted online.

- Type your questions in the “Q&A” chat box.

- There will be a Q&A period at the end of the webinar.
Webinar Participants

Program

• U-RISE: Edgardo Falcón-Morales, Ph.D., Kenneth Gibbs, Ph.D.

• MARC: Sydella Blatch, Ph.D., Patrick H. Brown, Ph.D.

• Alison Gammie, Ph.D., Director, Division of Training, Workforce Development and Diversity

Review

• Stephanie Constant, Ph.D., Chief, NIGMS Scientific Review Branch

Grants Management

• Justin Rosenzweig, Grants Management Team Leader
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@NIGMSTraining

@NIGMS account for research training, careers & research capacity building news. Privacy policy bit.ly/2jnhHvZ & disclaimers bit.ly/2kGSdGM.

Bethesda, MD nigms.nih.gov/training/Pages... Joined October 2017
Disclaimer

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

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

I. Program Overview

II. Application Overview

III. Peer Review Overview

IV. Budget Overview
NIGMS Training Programs

MARC and U-RISE applicant webinar 2021

MARC and U-RISE Informational Webinar for Prospective Applicants 2021
Program Goals

To develop a diverse pool of undergraduates who complete their baccalaureate degree and transition into and complete biomedical, research-focused higher degree programs (e.g., Ph.D. or M.D./Ph.D.)

U-RISE Program Website: https://www.nigms.nih.gov/training/RISE/Pages/U-RISE-T34.aspx

MARC Program Website: https://www.nigms.nih.gov/training/MARC
# Eligibility Overview

<table>
<thead>
<tr>
<th>Eligibility</th>
<th>U-RISE</th>
<th>MARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution</td>
<td><strong>Research Active</strong>&lt;br&gt;Average &lt; $7.5M NIH Research Project Grant (RPG) funding per year over the past three fiscal years</td>
<td><strong>Research Intensive</strong>&lt;br&gt;Average &gt; $7.5M NIH Research Project Grant (RPG) funding per year over the past three fiscal years</td>
</tr>
<tr>
<td>Principal Investigator</td>
<td>• Must have full time appointment&lt;br&gt;• Established investigator in the biomedical sciences and capable of providing both administrative and scientific leadership&lt;br&gt;• Multiple PIs are encouraged</td>
<td></td>
</tr>
<tr>
<td>Trainees</td>
<td>• US Citizen or Permanent Resident&lt;br&gt;• Research-oriented individual pursuing <strong>full time</strong> training (normally two to three years)&lt;br&gt;• See the <a href="https://nihgrants.nih.gov/grants/policy/">NIH Grants Policy Statement</a> for additional information</td>
<td></td>
</tr>
</tbody>
</table>

MARC and U-RISE Informational Webinar for Prospective Applicants 2021
## Key Program Dates

<table>
<thead>
<tr>
<th>Program</th>
<th>FOA</th>
<th>Application Due Date</th>
<th>Review</th>
<th>Council</th>
<th>Budget Start</th>
</tr>
</thead>
</table>
| Undergraduate Research Training Initiative for Student Enhancement (U-RISE) (T34) | PAR-21-146     | May 26, 2021
May 26, 2022
May 26, 2023 | October/November | January         | April         |
| Maximizing Access to Research Careers (MARC) (T34)                      | PAR-21-147     |                            |               |                | June          |
NIGMS Training Programs Are Expected To

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

Webinar Outline

I. Program Overview

II. Application Overview

III. Peer Review Overview

IV. Budget Overview
First Step in Preparing an Application

Read the FOAs, Related Notices and **SF424 (R&R) Application Guide** thoroughly

U-RISE: **PAR-21-146**
MARC: **PAR-21-147**

Change since most recent FOA

Application withdrawal
Application Title Format

Use the format:

“[MARC or U-RISE] at ___________________

name of institution

For example:

MARC at Fantastic College

U-RISE at the University of Success
# The Application - **Page Limits**

<table>
<thead>
<tr>
<th>Section of Application</th>
<th>Page Limits *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Summary/Abstract</td>
<td>30 lines of text</td>
</tr>
<tr>
<td>Program Plan</td>
<td>25</td>
</tr>
<tr>
<td>Advisory Committee (optional)</td>
<td>1</td>
</tr>
<tr>
<td>Recruitment Plan to Enhance Diversity</td>
<td>3</td>
</tr>
<tr>
<td>Trainee Retention Plan</td>
<td>3</td>
</tr>
<tr>
<td>Outcomes Data Collection and Storage Plan</td>
<td>2</td>
</tr>
<tr>
<td>Dissemination Plan</td>
<td>1</td>
</tr>
<tr>
<td>Plan for Instruction in Methods for Enhancing Reproducibility</td>
<td>3</td>
</tr>
<tr>
<td>Plan for Instruction in the Responsible Conduct of Research</td>
<td>3</td>
</tr>
<tr>
<td>Each Biographical Sketch</td>
<td>5</td>
</tr>
<tr>
<td>Institutional Support Letter</td>
<td>10</td>
</tr>
<tr>
<td>Institutional Eligibility Letter</td>
<td>1</td>
</tr>
<tr>
<td>Conflict Resolution Protocols (optional)</td>
<td>3</td>
</tr>
</tbody>
</table>

*If page limits are exceeded, the application may be withdrawn prior to review*
# Research Training Program Plan Form

**Introduction**
1. Introduction to Application (for Resubmission and Revision applications)

**Training Program Section**
2. Program Plan
3. Plan for Instruction in the Responsible Conduct of Research
4. Plan for Instruction in Methods for Enhancing Reproducibility
5. Multiple PD/PI Leadership Plan (if applicable)
6. Progress Report (for Renewal applications)

**Faculty, Trainees and Training Record Section**
7. Participating Faculty Biosketches
8. Letters of Support
9. Data Tables

**Other Training Program Section**
10. Vertebrate Animals
11. Select Agent Research
12. Consortium/Contractual Arrangements

**Appendix**
13. Appendix

- Training Program Section
- Faculty, Trainees, and Training Record Section
- Appendix
- Other Attachments (R&R Other Project Information Form)
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)
6. Progress Report for renewals through PAR-19-218 (U-RISE) or PAR-19-219 (MARC) only*

Please contact Program Officer to confirm
2. Program Plan (*Page limit: 25 pages*)

- Rationale, Mission, and Objectives
- Curriculum and Overall Training Plan
- Career Development
- Program Oversight, Participating Faculty Selection, and Mentor Training
- Institutional and Departmental Commitment to the Program
- Training Program Director(s)/Principal Investigator(s)
- Preceptors/Mentors (Participating Faculty)
- Trainee Positions, Appointment Process, Retention and Support
- Training Outcomes
- Program Evaluation and Dissemination
- **Suggested Table Formats** (A.1, A.2, and A.3; B.1, B.2, or B.3)
• How the program will develop a diverse pool of well-trained scientists who have the skills required to transition into and complete biomedical, research-focused higher degree programs (e.g., Ph.D. or M.D./Ph.D.).

• How the program will **enhance the training environment** beyond just financial support of trainees

• Justification for the program
  
  o 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 & student demographics** (Suggested Table Formats A.1, A.2, A.3; Data Tables 2,3,4)

• Training mission and **objectives (specific, measurable)**
  
  o Informed by baseline data, trainee pool and institutional context

  o Objectives should include, but not be limited to, degree completion rates, appropriate time-to-degree, and the rate of transitioning into and completion of research-focused higher degree programs
Suggested Table Formats: A.1-A.3

**Sample Table Formats - T34 Competing Applications**

<table>
<thead>
<tr>
<th>Table</th>
<th>Title of Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Undergraduates and Faculty in Participating Biomedical Departments and Interdepartmental Programs</td>
</tr>
<tr>
<td>A.2</td>
<td>Student Population Characteristics</td>
</tr>
<tr>
<td>A.3</td>
<td>Undergraduate Graduation Rates</td>
</tr>
</tbody>
</table>

- A summary of key data from the table should also be included in the narrative of the application.
- These tables must be included in the Program Plan section and will count towards the 25-page limit.

**Do Not** include these Suggested Tables in the required Training Data Tables attachment or your application will be withdrawn.
Curriculum and Overall Training Plan

• 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, quantitative & computational skills development, etc.)

• Mechanism for ensuring that the trainees participate in **authentic research experiences** throughout the training period. Classroom-centered research training activities should describe objectives, course attributes, faculty, frequency, and expected trainee outcomes.

• Plans to ensure at least **one summer research training experience** at a research-intensive institution (for MARC, either at an external site or at their home institution), preferably those with [NIGMS basic biomedical and medical science training programs (T32)](https://www.traininggrant.nih.gov/grants/t32)

• Mechanism to ensure that trainees are learning the **highest standards of practice in biomedical research**.
Curriculum and Overall Training Plan, cont’d

- **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.
- 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, 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

• How applicants/trainees will be provided with information about career outcomes of graduates of the program and the overall biomedical research workforce landscape

• How trainees will be provided with support as well as adequate, appropriate, and timely information regarding the steps required to transition into the next phase of the biomedical research workforce pathway (e.g., when applying to research-focused graduate programs, or funding opportunities)

• How the trainees will be sponsored or mentored by individuals who will enhance their career opportunities
Program Oversight, Participating Faculty Selection, and Mentor Training

Should include:

- The planned strategy and **administrative structure** to oversee and monitor the program and to ensure appropriate and timely trainee progress.

- How the program will ensure that participating faculty:
  - employ and impart the highest standards of **scientific rigor**,  
  - reinforce the materials on **RCR and methods to enhance reproducibility**,  
  - engage in activities that **promote trainee career development**

- **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

In addition to the *Institutional Support Letter*, this section may be used to expand upon the "Facilities & Other Resources" and "Letters of Support", to provide additional information regarding the institutional and departmental commitment to the program.

*Do not* repeat information contained elsewhere in the application.
Program Director(s)/Principal Investigator(s)

- Expertise as well as administrative and training experience
- Sufficient bandwidth to oversee the program
- Demonstrated commitment to training the next generation of biomedical research workforce
- At least one member with scientific expertise in the biomedical sciences
- Received training to mentor individuals from diverse backgrounds
- Multiple PDs/PIs approach is encouraged
- The application should describe the administrative structure and leadership succession plan for critical positions
Preceptors/Mentors (Participating Faculty)

Create a **diverse team** (e.g., underrepresented backgrounds, women, different career stages):

- Will promote the success of the trainees and training program
- Have sufficient time to commit to training
- Receive training in evidence-informed teaching and mentoring practices
- Promote the use of highest standards of practice to ensure the safety of all individuals in the research environment
- 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
Trainee Positions, Appointment Process, Retention and Support

- Provide a **strong justification for the number of requested slots** per year in the context of the training grant eligible pool described in the rationale section and other training programs at the institution.

- Potential trainees should be **research-oriented individuals** enrolled in a major leading to a baccalaureate degree in a STEM discipline that will prepare them for a biomedical, research-focused higher degree program.

- Explain the **proposed training grant support structure**, i.e., how many individuals (e.g., 4 per year), at what stage (e.g., third- and four-year students), and for how long (e.g., for 2 years).

Describe the review process to identify candidates for the program. **Do not include Trainee Selection and Appointment Procedures** in the Appendix or the application will be withdrawn due to non-compliance with the FOA instructions.

- Applicants may use this section to expand upon the Trainee Retention Plan (provided in the "Other Attachments") and to provide evidence of the program's commitment to ensuring the **well-being and success of all trainees** throughout their training.
Training Outcomes

• Provide outcomes for the program described (or for new programs, provide outcomes for training grant eligible students for the proposed program).

• Through narrative descriptions and summary of data presented in the required Data Tables, the application should describe the following:
  
  o Evidence that recent program graduates conducted rigorous research (e.g., data in Table 5C)
  
  o The rate of baccalaureate degree attainment and time-to-degree for recent graduates. Should include institutional comparator groups and the graduation rates for all students in the STEM fields represented.
  
  o Success of former students in transitioning to the next phase in the biomedical research workforce pathway (e.g., matriculation to a research-focused higher degree program). Should match Training Table 8D. Although Table 8D for new applications only allow for five years of recent graduate outcomes, the application may describe up to 15 years of outcomes in the narrative and using Suggested Table Format B.1, B.2, or B.3.
• Applications may describe up to 15 years, please choose the format that is relevant for your data.
• If used, these suggested table formats must be included in the Program Plan section and will count towards the 25-page limit.

Do Not include these Suggested Tables in the required Training Data Tables attachment or your application will be withdrawn.
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.
- 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.

**NIH contribution toward evaluation costs are typically limited to a maximum of $3,000 for the 5-year project period (TRE).**
3. 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 participating 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


4. Plan for Instruction in Methods for Enhancing Reproducibility

• Describe how trainees will be instructed in principles important for enhancing research reproducibility

• Describe how instruction strategies are well integrated into the overall training program at multiple stages of trainee development and in a variety of formats and contexts.

• See additional instructions in the SF424 Application Guide for details

Resources
• NIH Website on Rigor & Reproducibility
• NIGMS Clearinghouse for Data Reproducibility Training Modules
• NIGMS Funded Projects on Rigor & Reproducibility
### Faculty, Trainees, and Training Record Section

<table>
<thead>
<tr>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Participating Faculty Biosketches</td>
</tr>
<tr>
<td>8. Letters of Support</td>
</tr>
<tr>
<td>9. Data Tables</td>
</tr>
</tbody>
</table>
7. Faculty Biosketches

Personal statement should address:

• 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 their PhDs in a timely fashion

Biosketches are limited to five pages each (NOT-OD-15-032)
8. Letters of Support

- **Institutional Support Letter** (10 page maximum) – ensuring success of the planned training program and its trainees.

- **Institutional Eligibility Letter** (1 page maximum) – ensuring eligibility:
  - RPG average annual funding

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

- **Other Letters of Support** (e.g., partner Institutions) - can be included but may not have information required in the Institutional Support Letter.
9. Data Tables


The application must include the required Training Data Tables.

<table>
<thead>
<tr>
<th>Data Tables</th>
<th>Date Posted</th>
<th>Blank Data Tables</th>
<th>Instructions and Sample Data Tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Applications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Undergraduate Training Submit tables: 2, 3, 4, 5C, 8D</td>
<td>3/25/2020</td>
<td>MS Word (49 KB)</td>
<td>MS Word (51 KB) PDF (360 KB)</td>
</tr>
<tr>
<td>Renewal or Revision Applications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewal or Revision Undergraduate Training Submit tables: 2, 3, 4, 5C, 8D</td>
<td>3/25/2020</td>
<td>MS Word (49 KB)</td>
<td>MS Word (51 KB) PDF (360 KB)</td>
</tr>
</tbody>
</table>

Applications that do not contain the required tables, or that submit any additional tables in this attachment, will be considered noncompliant and will not be reviewed.
Rationale: This information allows reviewers to assess the distribution of participating faculty by rank (junior vs. senior), by research interests, and by department or interdepartmental program. In addition, data on the mentoring records of faculty permit an evaluation of the experience of participating faculty in facilitating the progression of undergraduates in their careers. The data concisely summarizes information about the training faculty.
### Sample Table 3. Federal Institutional Research Training Grants and Related Support Available to Participating Faculty Members

<table>
<thead>
<tr>
<th>Grant Title</th>
<th>Award Number</th>
<th>Project Period</th>
<th>PD/PI</th>
<th>Number of Undergraduate Positions</th>
<th>Names of Overlapping Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic Basis of Mental Illness</td>
<td>T32 MH02708-07</td>
<td>07/2010-06/2015</td>
<td>Johnson, Albert P.</td>
<td>4</td>
<td>Johnson Watson</td>
</tr>
<tr>
<td>Research Education Program for Residents in Psychiatry</td>
<td>R25 MH09876-06</td>
<td>07/2013-06/2018</td>
<td>Mendez, Roberto V.</td>
<td>0</td>
<td>Mendez, Rivers, Truesdale</td>
</tr>
<tr>
<td>Career Development in Pediatric Mental Health</td>
<td>K12 HD01234-09</td>
<td>07/2012-06/2017</td>
<td>Sterman, Patricia S.</td>
<td>0</td>
<td>Rubin</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>16</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Rationale:** This table will permit an evaluation of the current **level of support** for undergraduate research training and the extent to which the proposed undergraduate program has **overlap** with other similar programs at the institution and in participating faculty.
### Rationale:
This table provides evidence of the **strength of the research environment**, the availability of **funds to support research conducted by the trainees**, and the **appropriateness** of the participating faculty in terms of their **active research support**.

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Funding Source</th>
<th>Grant Number</th>
<th>Role on Project</th>
<th>Grant Title</th>
<th>Project Period</th>
<th>Current Year Direct Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jones, Janine L.</td>
<td>NIH</td>
<td>1 R01 GM76259-01</td>
<td>PD/PI</td>
<td>Structure and Function of Acetylcholine Receptors</td>
<td>06/2014--05/2018</td>
<td>$190,000</td>
</tr>
<tr>
<td>Jones, Janine L.</td>
<td>NIH</td>
<td>5 K08 AI00091-03</td>
<td>PD/PI</td>
<td>Purification &amp; Identification of Receptors</td>
<td>11/2012-11/2017</td>
<td>$140,000</td>
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<tr>
<td>Ehlers, Roger G.-</td>
<td>Univ</td>
<td></td>
<td>PD/PI</td>
<td>University start-up funds</td>
<td>08/2014-07/2017</td>
<td>$350,000</td>
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<tr>
<td>Mack, Thomas R.</td>
<td>Fdn</td>
<td></td>
<td>PD/PI</td>
<td>Control of Angiogenesis</td>
<td>03/2011-02/2015</td>
<td>$185,000</td>
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<tr>
<td>Mack, Thomas R.</td>
<td>NSF</td>
<td>PCM 80-12935</td>
<td>PD/PI</td>
<td>Cell Culture Center</td>
<td>12/2012-11/2015</td>
<td>$180,000</td>
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<tr>
<td>Mack, Thomas R.</td>
<td>NIH</td>
<td>1 P01 HL71802-05</td>
<td>Project PI</td>
<td>Subproject 4: Oncogenic Kit Receptor Signaling in vivo</td>
<td>10/2011-09/2015</td>
<td>$165,000</td>
</tr>
<tr>
<td>Smith, James P.</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zachary, Andrew</td>
<td>NIH</td>
<td>1 U01 AI28507-01</td>
<td>PD/PI</td>
<td>Human Monoclonal Antibodies as a Therapy for Staphylococcal Enterotoxin</td>
<td>07/2013-06/2018</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

**Average Grant Support per Participating Faculty Member**: $282,000
### Rationale:
This information provides an indicator of the ability of each faculty member to foster undergraduate trainee productivity through generation of publishable results.

### Table 5C. Publications of Those in Training: Undergraduate

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Trainee Name</th>
<th>Past or Current Trainee</th>
<th>Training Period</th>
<th>Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layback, Sally G.</td>
<td>Wand, Dennis R.</td>
<td>Past</td>
<td>2000-2001</td>
<td>No Publications: Left program</td>
</tr>
</tbody>
</table>
### Required Training Data Tables: 8D Part II

#### Part II. Recent Graduates (Only for New Applications)

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Faculty Member</th>
<th>Start Date</th>
<th>Summary of Support During Training</th>
<th>Degree(s) Received and Year(s)</th>
<th>Topic of Research Project</th>
<th>Initial Position Department Institution Activity</th>
<th>Current Position Department Institution Activity</th>
<th>Subsequent Grant(s)/Role/Year Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith, Calvin</td>
<td>Hughes, Noreen</td>
<td>09/2012</td>
<td></td>
<td>BS 2016</td>
<td>Ribosomal protein synthesis</td>
<td>Graduate Student Dept of Molecular Biology University of Maryland Further Training</td>
<td></td>
<td>NSF Fellowship/PI/2017</td>
</tr>
<tr>
<td>Gomez, Catherine</td>
<td>Zhang, Henry</td>
<td>09/2013</td>
<td></td>
<td>BS 2017</td>
<td>Modulation of host cellular responses</td>
<td>Student University of Arizona College of Medicine Further Training</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rationale:** For new applications, this table provides information on the **effectiveness** of the proposed training program.
Appendix

## PHS 398 Research Training Program Plan

<table>
<thead>
<tr>
<th>OMB Number: 0925-0001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expiration Date: 2/20/2023</td>
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### Introduction

1. Introduction to Applicant (or Resubmission and Revision applications)

### Training Program Section

2. * Program Plan
3. Plan for Instruction in the Responsible Conduct of Research
4. Plan for Instruction in Methods for Enhancing Reproducibility
5. Multiple PD/PI Leadership Plan (if applicable)
6. Progress Report (for Renewal applications)

### Faculty, Trainees and Training Record Section

7. Participating Faculty Biosketches
8. Letters of Support
9. Data Tables

### Other Training Program Section

10. Vertebrate Animals
11. Select Agent Research
12. Consortium/Contractual Arrangements

### Appendix

13. Appendix

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### Required

- Required Training Activities
- Responsible Conduct of Research Syllabi

### Allowable

- Elective Activities
- Evaluation and Assessment Instruments
- Conflict Resolution Protocols (3 pp.)

⚠️ **Do not include Trainee Selection & Appointment Procedures**

⚠️ **Applications will not be reviewed that**

- do not include required appendices
- include unallowed appendices
- exceed page limit of any materials
Required Appendix Items

- **Required Training Activities** - Syllabi/Outlines used to assess all required didactic components (e.g., mentor training, professional development workshops)

- **Responsible Conduct of Research Syllabi** - Syllabi/Outlines to describe RCR training and when the trainees receive it

- If very lengthy, please trim these syllabi or outlines to remove extraneous information.

If these are not included, the application will be considered incomplete and will not be reviewed.
### Other Attachments

**Required**
- Recruitment Plan to Enhance Diversity (3 pp.)
- Trainee Retention Plan (3 pp.)
- Outcomes Data Collection and Storage Plan (2 pp.)
- Dissemination Plan (1 pp.)

**Optional**
- Advisory Committee (1 pp.)

Applications will not be reviewed that
- do not include required attachments
- includes unallowed attachments
- exceed page limit of any materials
Recruitment Plan to Enhance Diversity

• 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.

• Providing accommodations for is not the same as recruitment of students with disabilities.

Resources

• NIGMS Enhancing Diversity in Training Programs
• NIH Extramural Diversity Recruitment & Retention

If this plan is not included, the application will be considered incomplete and will not be reviewed.
Trainee Retention Plan (3 pages)

- 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

- NIGMS Enhancing Diversity in Training Programs
- NIH Extramural Diversity 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)

• A plan to track the outcomes for all supported trainees for a minimum of **15 years beyond** the trainee’s participation in the program.

• You are encouraged to make the aggregate outcome data available on your 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)

• A specific plan to nationally disseminate any findings resulting from or materials developed under the auspices of the program.

• Examples 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) Optional

• Not a required component of a training program.
• Describe how the Advisory Committee will assess the overall effectiveness of the program.
• Include the roles, responsibilities, and desired expertise of committee members, frequency of committee meetings, and other relevant information.
• Only pre-existing Advisory Committee members should be named in the application.
Budget Overview
Budget - Participants

• Support is allowed for students in the form of stipend.

• Students may be supported on U-RISE/MARC funding usually up to three years.

• Students may not concurrently hold another federally sponsored award that duplicates U-RISE/MARC support.
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 Ruth L. Kirschstein National Research Service Award (NRSA) webpage.
Trainee Travel

• NIGMS will provide up to $1,000 per trainee to travel to scientific meetings or training experiences that will enhance scientific development, build science identity, create a sense of belonging in the scientific community, and build professional networks.

• For supported institutions outside the continental United States, $1,250 for travel per trainee will be provided.

• NIGMS will also provide funds for the summer research training experience for up to 50% of the awarded number of U-RISE/MARC trainees at the time the competing award is made.

• Funds for the summer research experience (SRE) will be provided as follows: $3,000 per traineee, to be used in accordance with the institutional policies as a per diem for a period of up to ten weeks; and an additional $500 for travel to and from the host research training. No SRE funds for students staying at the home institution.
Training Related Expenses

- TRE that may be requested is limited to a maximum of:

<table>
<thead>
<tr>
<th>U-RISE</th>
<th>MARC</th>
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</thead>
<tbody>
<tr>
<td>$10,000/trainee/year</td>
<td>$8,000/trainee/year</td>
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<tr>
<td>($350,000 max)</td>
<td>($250,000 max)</td>
</tr>
</tbody>
</table>

- 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

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

• Typically, the total combined salary support for other administrative personnel (e.g., program administrator/program coordinator and/or program assistant/clerical support) does not exceed 3.0 person months (i.e., 25% effort on a 12-month basis) depending on the size and scope of the program.
xTrain for Student Appointments

• All U-RISE or MARC trainees must have an appointment form submitted through the eRA Commons to xTrain before they may receive their stipend.

• If participants cannot continue in the grant program for the full appointment period, an amended appointment must be submitted to xTrain with the correct appointment period.

xTrain Web Page - application guide, quick reference sheets, FAQs, training materials:
https://era.nih.gov/services_for_applicants/other/xTrain.cfm
Webinar Outline

I. Program Overview
II. Application Overview
III. Budget Overview
IV. Peer Review Overview
Review of Applications

- U-RISE/MARC applications reviewed by standing NIGMS review committees: TWD-C and TWD-D.  
  [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 (SRO) will provide information about meeting dates, instructions for providing updates, link for committee roster, and people to contact during the review and post-review process.

- Scores and summary statements accessed through PI’s eRA Commons account.
Review of Applications

• Please read the review criteria while preparing your application to make sure all of the required information is included.

• Review panel will assess your application against the review criteria.
Scored Review Criteria

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

• Training Program Director(s)/Principal Investigator(s) (PD(s)/PI(s))

• Preceptors/Mentors (Participating Faculty)

• Trainee Positions, Appointment Process, Retention, and Support

• Training Record
  - Training Outcomes for Trainees (renewals) or Training Grant Eligible Pool (new)
  - Program Evaluation
Review Criteria – Section V of FOA

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

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

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

- Budget and Period of Support (# Trainee Slots)
Application Preparation - Reminders

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

• Make sure that materials are supplied in the correct locations, per FOA instructions.

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

🚫 Applications will be withdrawn if anything is missing or unallowed materials are included!
Application Preparation - Tips

• Don’t bury important information; don’t expect reviewers to “read between the lines” to figure out what you are proposing.

• Make sure faculty biosketches are up-to-date and relevant for training program (personal statement).

• Data in tables and text should match; also across tables.

• Present outcomes data in a straightforward manner.
  • Don’t exaggerate.
  • Don’t hide data (reviewers will “do the math”).
## Review Process: Usual Timeline

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activity</th>
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<td>(From submission date)</td>
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<tr>
<td>1 - 2 months</td>
<td>Referral</td>
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<tr>
<td>2 - 6 months</td>
<td>Review Panel</td>
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<tr>
<td>6 - 7 months</td>
<td>Summary Statement Available</td>
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<td>7 - 8 months</td>
<td>Advisory Council</td>
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<td>8 - 9 months</td>
<td>Funding Decisions</td>
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<tr>
<td>9 - 10 months</td>
<td>Award Start Date</td>
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For Additional Information

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<tr>
<td>Funding Opportunity Announcement (FOA)</td>
<td>PAR-21-146</td>
<td>PAR-21-147</td>
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<td>NIGMS website</td>
<td>U-RISE</td>
<td>MARC</td>
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Frequently Asked Questions – Application Guide, Electronic Submission of Grant Applications
Critical Deadlines

• Letter of Intent Due Date(s)
  • Not Applicable

• Application Due Date(s)
  • May 26, 2021

• Earliest Start Date

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<thead>
<tr>
<th>U-RISE</th>
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<tr>
<td>April 2022</td>
<td>June 2022</td>
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Questions?

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