

NIH Instrumentation Grant Program for Resource-Limited Institutions (RLI-S10)

Informational Webinar Slides
Updated: April 4, 2024



National Institutes of Health

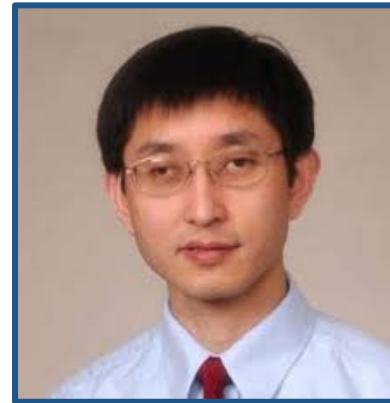
Today's Presenters



Dorothy Beckett
National Institute of
General Medical Sciences



Anthony DiBello
National Cancer Institute



Xiang Ning Li
Office of Research
Infrastructure Programs



Desirée Salazar
National Heart Lung
and Blood Institute



Background and Overview of the RLI S10 Program



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The RLI-S10 Program and the NIH UNITE INITIATIVE

Three domains of the UNITE initiative

- Health disparities/minority health research (HD/MH)
- Internal NIH workforce
- External biomedical and behavioral research workforce

Goals: Enable greater transparency, accountability, and communications across NIH and the biomedical and behavioral research community



UNITE-E Committee: Change policy, culture and structure to promote diversity in the extramural research ecosystem



Unite E: Priorities for the External Workforce

- Science Education Partnership Awards (SEPA) – Increase participation of NIH Institutes, Now at 17
- Research With Activities Related to Diversity (ReWARD) ([PAR-23-122](#))
- Instrumentation Grant (S10) Program for Resource-Limited Institutions-14 ICOs signed on ([PAR-23-138](#))

Concepts approved by NIGMS Council:

- Institutional Climate Assessment and DEI Action Plan Development Grants
- Research Capacity Building Program to Enhance Workforce Diversity

Concept approved by NIMHD Council:

- Institutional Research Capacity Building Needs Assessment and Action Plan Development Grants



Instrumentation Grant Program for Resource-Limited Institutions (RLI-S10)

Supports acquisition of modern scientific instruments by Resource-Limited Institutions: [PAR-23-138](#)



Credit: iStock



Program Goals

- Provide instruments for research and teaching
- Enhance biomedical research capacity at Resource-Limited Institutions



RLI-S10 Institutional Eligibility

Institutional Eligibility:

- Domestic institutions located in the United States and its territories;
- Meet the following criteria
 - Have received < \$6 million per year from [NIH Research Project Grants \(RPGs\)](#) in each of the preceding three fiscal years
 - Award undergraduate (B.S. or B.A.) and/or graduate degrees in biomedical sciences,

AND

- Enroll at least 35% of undergraduate students supported by Pell grants based on [Integrated Postsecondary Education Data System \(IPEDS\) database](#)

OR

- Historically Black Colleges and Universities (HBCUs) and Tribal Colleges and Universities (TCUs)



Additional RLI-S10 Institutional Eligibility Information ([NOT-GM-24-014](#))

- ***Pell Grant Support:*** IPEDS reports the percentage of students supported by Pell grants in two ways: (1) the percentage of all undergraduates enrolled and (2) the percentage of full-time, first-time, degree/certificate-seeking undergraduate students. Institutions may use either option for determining their eligibility. No matter which category of IPEDS data is used, the institution's Pell enrollment in that category must be at least a yearly average of 35% calculated from the three most recent years of reported data.
- The application must be submitted by an eligible organization with a **Unique Entity Identifier (UEI)** and a **unique NIH eRA Institutional Profile File (IPF) number**. For institutions with multiple campuses, eligibility can be considered for an individual campus (e.g., main, satellite, etc.) as the applicant organization only if a UEI and a unique NIH eRA IPF number are established for the individual campus. For institutions that use one UEI or NIH IPF number for multiple campuses, eligibility as the applicant organization is determined for the campuses together.



Instrumentation Types Supported by the RLI-S10

- Requested instruments may support biomedical research and education in basic, translational, biomedically-related behavioral or clinical fields
- Eligible instruments include, but are not limited to:
 - Centrifuges
 - Basic cell sorters
 - Confocal microscopes
 - Ultramicrotomes
 - Gel imaging systems
 - Mass spectrometers
 - Optical instruments such as fluorimeters or CD spectropolarimeters
 - Micro-plate-readers equipped with optical systems for high throughput measurements
 - FPLCs and HPLC



\$\$R1 S10 Program Budgets\$\$

- Award amounts: \$25,000-\$250,000
- If the instrument cost is >\$250,000 you may request the maximum amount and provide documentation of the funding source(s) that will cover the remaining cost.
- Service contract costs for up to 5 years may be included in the budget but must be paid during the 1 year award period.
- Additional guidance: Applicants should be fiscally responsible and, when possible, secure academic discounts.



RLI-S10 Roles, Responsibilities, and Instrument Uses



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Instrument Usage

Research



Education



Major Users

At least three Major Users required for each application

Major Users can include:

- Researcher has a demonstrated scientific need for the instrument
- Upper level undergraduate or graduate laboratory course that will integrate the instrument into learning objectives
- A single defined research or educational project can account for only one Major User
- PD/PI and Major Users are not required to have existing NIH funding



Major Users and Institutional Affiliation

While Major Users can be from the Applicant Institution, or from Nearby or Regional Institutions, the Following must be tied to the Applicant Institution:

- PD/PI must have a full-time appointment at the applicant institution
- Instrument must be housed at the applicant institution
- Use of the instrument in courses is limited to the applicant institution



Minor Users (Other Users)

Minor Users can include:

- Others that will benefit from the instrument
- Those who use the instrument for research or educational purposes
- Can be from the applicant institution, or from nearby or regional institutions
- No specific number of Minor Users is required
 - However, the application reviewers will take into account the number of Minor Users and potential future users



Instrument Location and Access

Instrument Location:

- Housed at the applicant institution
- Placed in a space that:
 - Maximizes sharing
 - Promotes cost-effectiveness
 - Fosters a collaborative multi-disciplinary environment
- Examples of suitable spaces:
 - Core facility
 - Shared-resource space
 - Accessible laboratory
 - Laboratory teaching space



Instrument Management

Responsibilities of the PD/PI:

- The applicant institution should propose a PD/PI
- Administrative and scientific oversight of the instrument
- Ensure safe and accessible location for the instrument
- Evaluation and reporting exercises
- Communications with NIH and instrument vendors
- Responsible for “Organizational Plan”



Instrument Management (cont'd.)

Responsibilities of Specified Individuals with Technical Expertise:

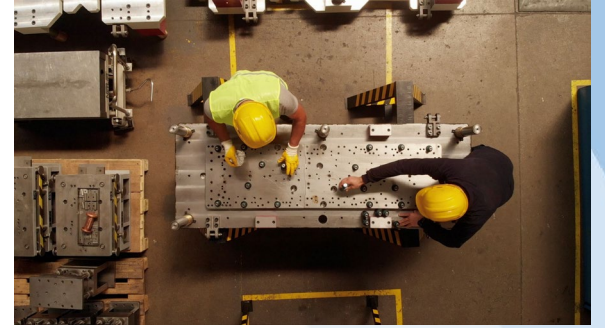
- **Need not be Core Facility Manager**
- Set up, run and provide training on the instrument
- Train new users
- Ensure safe operation
- Ensure appropriate maintenance
- Technical support for:
 - Sample preparation
 - Experimental design
 - Data collection, management, and analysis



Institutional Commitment

Responsibilities of the Institution:

- Instrument housing, accessibility, and maintenance
- Support for personnel
- Sustaining infrastructure and facilities
- Successful implementation of the instrument



A Brief Overview of an NIH Notice of Funding Opportunity (NOFO)



National Institutes of Health

NOFO Table of Contents

Part 1. Overview Information

Key Dates

Part 2. Full Text of the Announcement

Section I. Funding Opportunity Description

Section II. Award Information

Section III. Eligibility Information

Section IV. Application and Submission Information

Section V. Application Review Information

Section VI. Award Administration Information

Section VII. Agency Contacts

Section VIII. Other Information



NOFO Background and its Intended Audience

Section I. Funding Opportunity Description

Read carefully!

Contains key information about the goals of the funding opportunity and expectations of applications!



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Requirements for Application Submission

Section II. Award Information

Includes:

- Application Types (New, Resubmission, Renewal)
- Does this funding opportunity support clinical trials?
 - Restrictions on budgets and project period

Section III. Eligibility

Is the institution eligible for the funding opportunity?

Is the investigator eligible for the funding opportunity?



Application Preparation and Review

Section IV. Application and Submission Information

Contains detailed instructions about expected elements in a successful application

Section V. Application Review Information

Instructs the reviewers on how to evaluate the application

!! Note that for each application preparation instruction there is a corresponding review instruction !!



Administration and Important Contacts

Section VI. Award Administration Information Section

Information relevant to the award process, how the award is administered and investigator requirements for reporting on the award

VII. Agency Contacts Section

Names and contact information for the NIH Program and Review Staff who you can contact about your application

VIII. Other Information

General NIH policy information



Tips for Preparing your RLI S10 Application



National Institutes of Health

Institutions New to NIH? Make sure that you register!

Institution must complete the following registrations:

- **UEI** (Unique Entity Identifier) - a 12-character string created in SAM.gov.
- **SAM** (System for Award Management) – requires annual renewal.
- **Grants.gov** – required to submit grants.
- **eRA Commons** – required to do business with NIH.



Preparing SF424(R&R) Cover Form

SF424(R&R) Cover

- Follow all instructions in the SF424 (R&R) Application Guide
- **Title:** Provide a descriptive title that includes the generic name of the requested instrument.
- **Estimated Project Funding:**
 - Total Federal Funds Requested:
 - For instrument cost of \$25,000- \$250,000, enter the total cost.
 - For instrument cost >\$250,000, enter \$250,000
 - Total Non-Federal Funds: *The difference between instrument price and \$250K. Explain how the difference will be paid in the Equipment section on the SF424 (R&R).*
 - Total Federal & Non-Federal Funds: *Enter the total cost of the instrument from the quote.*
 - Program Income: *Enter zero as this does not apply to this NOFO.*

SF 424 (R&R) APPLICATION FOR FEDERAL ASSISTANCE Page 2

OMB Number: 4040-00
Expiration Date: 10/31/20

View Burden Statement

APPLICATION FOR FEDERAL ASSISTANCE
SF 424 (R&R)

3. DATE RECEIVED BY STATE: [] State Application Identifier: []

1. TYPE OF SUBMISSION: Pre-application Application Changed/Corrected Application

4. a. Federal Identifier: []
b. Agency Routing Identifier: []
c. Previous Grants.gov Tracking ID: []

2. DATE SUBMITTED: [] Applicant Identifier: []

5. APPLICANT INFORMATION

Legal Name: [] Organizational DUNS: []
Department: [] Division: []
Street1: []
Street2: []
City: [] County / Parish: []
State: [] Province: []
Country: USA: UNITED STATES ZIP / Postal Code: []

Person to be contacted on matters involving this application

Prefix: [] First Name: [] Middle Name: []
Last Name: [] Suffix: []
Position/Title: []
Street1: []
Street2: []
City: [] County / Parish: []
State: [] Province: []
Country: USA: UNITED STATES ZIP / Postal Code: []
Phone Number: [] Fax Number: []
Email: []

6. EMPLOYER IDENTIFICATION (EIN) or (TIN): []

7. TYPE OF APPLICANT: [] Please select one of the following

Other (Specify): []

Small Business Organization Type Women Owned Socially and Economically Disadvantaged

8. TYPE OF APPLICATION: New Resubmission Renewal Continuation Revision

If Revision, mark appropriate box(es):
 A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration
 E. Other (specify): []

Is this application being submitted to other agencies? Yes No What other Agencies? []

9. NAME OF FEDERAL AGENCY: [] 10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: []

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: []

12. PROPOSED PROJECT: Start Date [] Ending Date [] 13. CONGRESSIONAL DISTRICT OF APPLICANT: []



Project Information

SF424(R&R) Other Project Information

- **Project Summary/Abstract:**
 - Provide a succinct description of the requested instrument
 - **Explain the need for the instrument,**
 - Describe how access to the instrument will stimulate biomedical research and/or support education and increase research capacity at the applicant institution.
- **Project Narrative** (two or three sentences): Describe the relevance of the instrument to public health and its impact on research and education at the applicant institution.
- **Bibliography & References Cited:** List only publications that are relevant to the researchers' expertise in operation and usage of the instrument or relevant to projects that will be supported by the instrument.



Importance of the Biographical Sketches

[OMB No. 0925-0001 and 0925-0002 (Rev. 10/2007) Approved Through 06/30/2024]

BIOGRAPHICAL SKETCH
Provide the following information for the research personnel and other significant contributors.
Follow the format for each person. DO NOT EXCEED FIVE PAGES.

NAME: _____

ORA COMMONS [WEB NAME](#) (confidential, e.g., agency login): _____

POSITION TITLE: _____

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing. Include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY

A. Personal Statement

B. Positions, Scientific Appointments, and Honors

C. Contributions to Science

PI's Biosketch should include:

A. Personal Statement:

Describe technical expertise and qualifications directly related to the requested instrument;

B. Positions, Scientific Appointments, and Honors:

e.g., Tenured, or non-tenured faculty member; and

C. Contributions to Science:

Record of research accomplishment, student training, mentoring, and teaching if applicable.

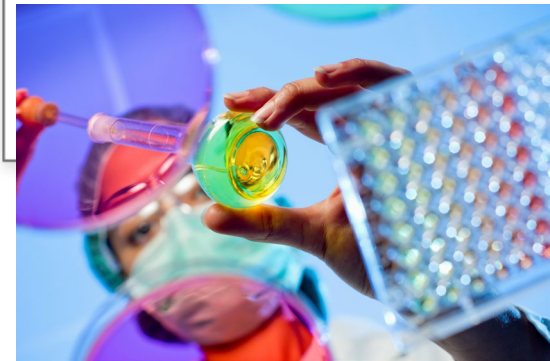
Who should provide a Biosketch?*

- Major Users
- Other Users
- Technical personnel, as applicable.

*SciENCv: [Science Experts Network Curriculum Vitae](#) is highly recommended to generate a Biosketch

- Each Biosketch may not exceed 5 pages

<https://grants.nih.gov/grants/forms/biosketch.htm>



Equipment Description

Equipment (single PDF attachment)

- Summarize the requested instrument, including its manufacturer, model number, specific features, and accessories.
- Provide a detailed budget breakdown of the main instrument and requested accessories, including tax and import duties, if applicable.
- Required: Include an itemized quote from the vendor with appropriate discounts, accessories, training services, warranties and service contracts (up to five years are encouraged).
- When applicable, describe the total Non-Federal Funds cited in the SF424 Cover form (for example, funds provided by the institution)



Applications that do not include a quote will be deemed incomplete and will be withdrawn from review!!!



Instrumentation Plan

Instrumentation Plan – single PDF titled “Instrumentation Plan”

- **Plan for Research and Education Capacity Building**
 - **Overall Benefit:** Outline the overall benefit of the instrument to the institution’s research and/or education, capacity building, and to the institution's long-range research goals.
 - **Research and/or Education Projects:** Describe major use of the instrument in at least 3 research projects and/or laboratory courses.
 - **Other Users:** Describe how the instrument will benefit other (minor) users.
 - **Inventory of Similar Instrumentation:** List similar instruments that exist at the institution and explain why they do not satisfy the research and education needs.
- **Technical Expertise:** Outline the available technical expertise for use of the proposed instrument.
- **Organizational Plan:** Describe day-to-day management, operation, and maintenance of the instrument, how new users will be engaged and trained, and plans for managing instrument for projects with human subjects, vertebrate animals, biohazards.

A screenshot of a research application form titled "RESEARCH & RELATED Other Project Information". The form includes various sections with checkboxes and text input fields. The sections are:

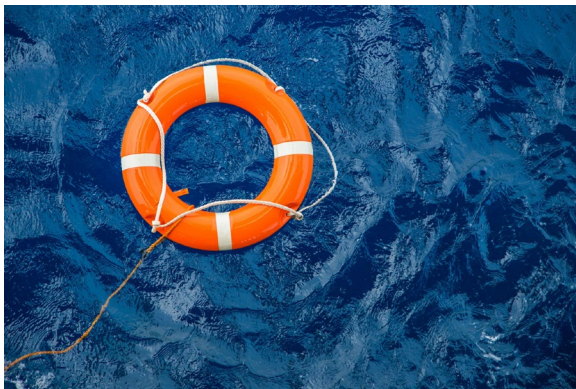
- 1. Are Human Subjects Involved? (Yes/No)
- 1.a. If YES to Human Subjects, is the Project Exempt from Federal regulations? (Yes/No) with sub-questions for IRB review pending status and approval date.
- 2. Are Vertebrate Animals Used? (Yes/No)
- 2.a. If YES to Vertebrate Animals, is the IACUC review Pending? (Yes/No) with sub-questions for IACUC approval date and 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 (with Add Attachment, Delete Attachment, View Attachments buttons)
- 8. Project Narrative (with Add Attachment, Delete Attachment, View Attachments buttons)
- 9. Bibliography & References Cited (with Add Attachment, Delete Attachment, View Attachments buttons)
- 10. Facilities & Other Resources (with Add Attachment, Delete Attachment, View Attachments buttons)
- 11. Equipment (with Add Attachment, Delete Attachment, View Attachments buttons)
- 12. Other Attachments (with Add Attachments, Delete Attachment, View Attachments buttons)

Other Attachments: Letters of Support

2. Letters of Support - combined in a single PDF named "Letters of Support"

From the **Authorized Organization Representative or Business Official**

- Verify that the institution meets the eligibility criteria
- Indicate the institutional commitment to instrument housing, accessibility, and maintenance
- Provide information regarding institutional support for personnel, who need not be a facility manager
- If applicable, state the amount of matching funds for instrument purchase and describe a containment plan for animals or infectious materials by the institutional biosafety officer, etc.



Page Limitations

- Follow page limitations instruction described in the SF424 Application Guide and the Table of Page Limits.
- **The Instrumentation Plan** (see Other Attachments section of the SF424(R&R) Other Project Information form) must include the following sections and may not exceed these page limitations:
 - **Plan for Research and Education Capacity Building:** up to 4 pages
 - **Technical Expertise:** up to 1 page
 - **Organizational Plan:** up to 2 pages



Review Criteria and Related Application Components

Review Criterion	Application Component
Overall Benefit	Project Summary/Abstract; Instrumentation Plan/Plan for Research and Education Capacity Building/Overall Benefit; All sections
Justification of Need	Instrumentation Plan/Plan for Research and Education Capacity Building
Technical Expertise	Instrumentation Plan/Plan for Research and Education Capacity Building/Technical Expertise; Biosketches; Bibliography & References
Research and Education Projects	Instrumentation Plan/Plan for Research and Education Capacity Building
Administration	Instrumentation Plan/Organizational Plan
Institutional Commitment	Letters of Support



Additional Resources

NIH Grants Process

- Helpful videos: https://grants.nih.gov/grants/grants_process.htm
- Grant Writing Webinar Series for Institution Capacity Building: <https://nigms.nih.gov/training/Pages/Grant-Writing-Webinar-Series-for-Institutions-Building-Research--and-Research-Training-Capacity.aspx>
- Notice of Funding Opportunities (NOFOs): [The Annotated NOFO](#)
- The NIH Application Guide: <https://grants.nih.gov/grants/how-to-apply-application-guide.html>
- Submitting an Application: <https://grants.nih.gov/grants/forms/submitting-an-application.htm>

The NIH Peer review Process

Information for Applicants: [Center for Scientific Review](#)

- For questions about the RLI S10 Funding Opportunity contact dorothy.beckett@nih.gov



Current and Former Members of the RLI-S10 NOFO Development and Implementation Team

- Current

- Anthony DiBello – NCI
- Anil Wali – NCI
- Desirée Salazar – NHLBI
- Dorothy Beckett – NIGMS
- Fed Bernal – NIGMS
- Christina Liu – NIGMS
- Franziska Grieder – ORIP
- Xiang-Ning Li – ORIP

- Former

- Alison Lin - NCI
- Malgorzata Klosek – ORIP
- Alena Horska – ORIP
- Frank Shewmaker - NINDS



**Questions?
Please type them into the Chat**



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