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NIGMS Office Hour – Predoctoral Basic Biomedical and Clinician Scientist Training Programs

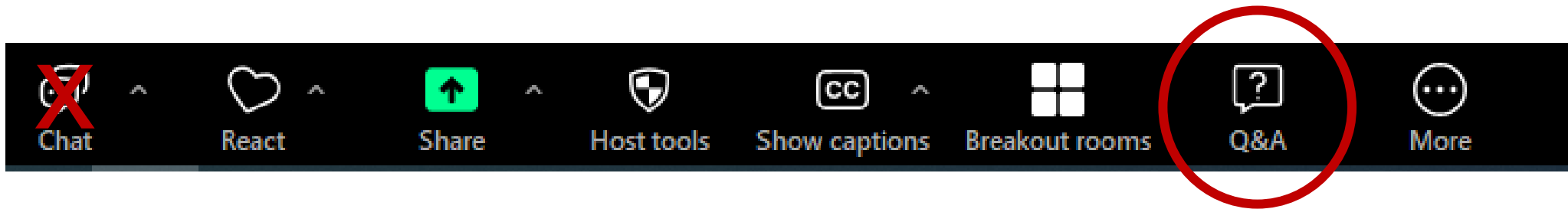
January 13, 2025

Agenda

- General Considerations
- Overview of relevant funding opportunities
 - National Institute of General Medical Sciences Predoctoral Basic Biomedical Sciences Research Training Program ([PAR-23-228](#))
 - Medical Scientist Training Program (MSTP) ([PAR-24-128](#))
 - Leading Equity and Diversity in the Medical Scientist Training Program (LEAD MSTP) ([PAR-23-030](#))
- Overview of updates to NIH Applications – January 2025
- Your Questions

How to ask questions

Please type your questions in the Q&A box, instead of in the chat box, throughout this session.



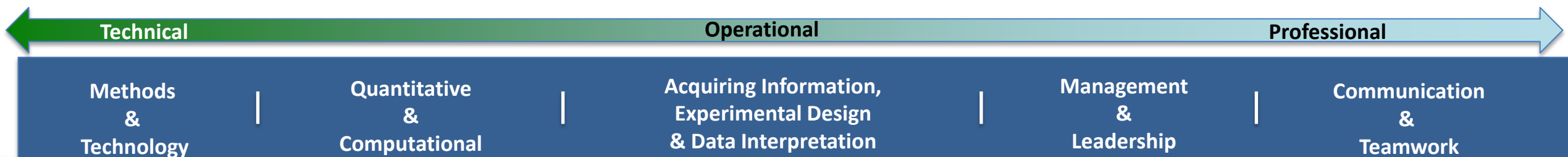
Disclaimer

- This presentation and accompanying slides are for informational purposes only. They serve as an overview and are not meant to be comprehensive in coverage of all required components of an application.
- For any submission, applicants are responsible for following the instructions detailed in the [SF424 Guide](#), the Notice of Funding Opportunity (NOFO) and any Related Notices.
 - ***Each NOFO has unique requirements – please read and follow them closely (and reach out to [NIGMS staff](#) with questions).***

General Considerations

Major Themes in NIGMS Training Programs

- **Training objectives** — specific, obtainable and measurable.
- **Trainee skills development** — use of evidence-informed approaches to provide technical, operational, and professional skills.
- **Rigor and transparency, responsible & safe conduct** of research throughout the training experience.
- **Safe, supportive and accessible research training environments** that promote the development of trainees from all backgrounds.



Major Themes in NIGMS Training Programs (cont.)

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



Promote Broad Participation in the Biomedical Workforce

- NIGMS expects organizations to engage in **outreach and recruitment activities** to encourage individuals from [underrepresented groups](#) to apply to participate in the program.
- Consistent with existing NIGMS practices and applicable law:
 - Funded programs may not use the race, ethnicity, or sex (including gender identity, sexual orientation, or transgender status) of a trainee or faculty candidate as an eligibility or selection criteria.
 - NIGMS does not use the race, ethnicity, or sex of trainee candidates, trainees, or faculty in the application review process or funding decisions.

Examples of Activities to Promote Broad Participation

- **Outreach** activities to foster awareness of research training opportunities for potential trainees from all backgrounds.
- Targeted **recruitment** activities to broaden program applicant pools.
- Program **admissions** processes that consider factors beyond grade point average and standardized test scores – such as how a trainee candidate’s experiences and perspectives further their commitment to program goals and a biomedical research career.
- Efforts to create and sustain **supportive research training environments** for trainees from all backgrounds, for example strengthening faculty skills to work effectively with trainees from various cultural and neurodiverse groups.
- Updating **curricula, pedagogy, and academic supports** to enhance student success and engagement.
- Expanding **mentoring**, networking, and skills development opportunities, and financial support for trainees.
- Utilizing **data** to identify, and as appropriate, feasibly address barriers in the research training environment that impede trainee success.

Applicants are encouraged to consult with their General Counsel to ensure all applicable laws and regulations are being followed. See more information [here](#).

**National Institute of General Medical
Sciences Predoctoral Basic
Biomedical Sciences Research
Training Program ([PAR-23-228](#))**

Program Goal and Eligibility

- **Goal:** To develop a diverse pool of well-trained scientists available to address the nation's biomedical research agenda.
- **Eligibility:** NIGMS accepts predoctoral research training grant applications from eligible institutions (see Section III of the NOFO) to enhance Ph.D. research training in [12 broad areas of basic biomedical sciences](#) relevant to the [NIGMS mission](#).

Basic Biomedical Program Areas

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

*Areas of program need (see [NOT-GM-24-056](#))

Basic Biomedical Considerations

- Be **well integrated** within one or more graduate department(s)/ program(s) and should exert a **strong, positive influence at the organizational level** on research training and mentoring practices.
- Students are typically provided full-time support for 1-2 years of graduate studies.
- Use of training grant support in the first two years of graduate research training is **strongly** encouraged to provide maximum benefits in the participation in courses, laboratory rotations, and professional development activities

Dual Degree Clinician Scientist Training Opportunities:

**Medical Scientist Training Program
(MSTP) ([PAR-24-128](#))**

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

Program Goals and Considerations

- **Goal:** The MSTP and LEAD MSTP programs aim to develop diverse pool of well-trained clinician-scientist leaders available to address the Nation's biomedical research needs.
- **LEAD-MSTP:** supports dual-degree clinician scientist training at institutions that have historically not been well represented among NIGMS-funded MSTPs.
 - **Eligibility:**
 - Historically Black Colleges and Universities (HBCUs).
 - Tribal Colleges and Universities (TCUs).
 - Institutions within [Institutional Development Award \(IDeA\)-eligible states](#): 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.

Clinician Scientist Training Program Considerations

- **Dual-degree training:** Ph.D. combined with a clinical degree, such as an M.D., D.O., D.V.M., D.D.S., Pharm.D., etc.
- NIGMS encourages institutions to offer trainees the opportunity to earn the Ph.D. in a **broad range** of biomedical, physical, and social and behavioral sciences, and engineering to meet the needs for clinician scientist researchers in all areas of the biomedical workforce.

Clinician Scientist Training Program Considerations (Cont)

- Trainees may receive six years of aggregate Kirschstein-NRSA support at the predoctoral level for dual-degree training, including any combination of support from institutional training grants and an individual fellowship award.
- **Proportion of trainees supported**
 - *MSTP* - approximately 25% of the trainees in the training program during any given year.
 - *LEAD MSTP* – well justified (program aims to build capacity for clinician-scientist training at participating institutions).

Overview of Changes to NIH Grant Applications – January 2025

FORMS-I Application Package

- Per [NOT-OD-24-086](https://grants.nih.gov/policy-and-compliance/changes-coming-2025), updated application forms (**FORMS-I**) must be used for funding opportunities due on or after **January 25, 2025**.
- Be sure to refer to the FORMS-I instructions and application package in the system used to submit your application, as FORMS-H may still be available for some time.

<https://grants.nih.gov/policy-and-compliance/changes-coming-2025>

Form-by-Form, Field-by-Field Application Instructions			
Determine the Correct Application Instructions for Your Activity Code			
Application Instructions	Description	SF424 (R&R) - Version I (Due dates ON/BEFORE Jan. 24, 2025)	SF424 (R&R) - Version I (Due dates ON/AFTER Jan. 25, 2025)
G General Instructions	Comprehensive guidance for research, training, fellowship, career development, multi-project, and small business applications	HTML / PDF	HTML / PDF
Filtered Application Instructions			
R Research Instructions	Guidance for research only Activity Codes: Research (R), including Research Education (R25), and equivalent Cooperative Agreements (U)	PDF	PDF
K Career Development Instructions	Guidance for career development only Activity Codes: Individual Career Development (K), excluding Institutional Career Development (K12, KL2, KM1)	PDF	PDF
T Training Instructions	Guidance for training only Activity Codes: Institutional Training (T), including International Training (D43, D71, U2R) and Institutional Career Development (K12, KL2, KM1)	PDF	PDF

Impact for NIGMS Applicants

- See [Feedback Loop Blog Post](#) and Guide Notices
- Updates to the **Other Attachments** section, and **Data Tables**

Program	NOFO	Guide Notice for January 2025 updates
Predocutorial Basic Biomedical	PAR-23-228	NOT-GM-24-053
MSTP	PAR-24-128	NOT-GM-24-053
LEAD MSTP	PAR-23-030	NOT-GM-24-052

Other Attachments

- The Recruitment Plan to Enhance Diversity is now a distinct attachment on the PHS 398 Research Training Program Plan form (similar to the Training in RCR and Methods for Instructions in Enhancing Reproducibility) **so is no longer included in “Other Attachments”**.
- The other required attachments in “Other Attachments” section remain (**varies by NOFO, so pay close attention**)

Training Data Tables

- [Institutional Training data tables](#) have been updated to reduce burden and promote consistent information collection across training programs.
- Notable updates include the following:
 - Tables 1 and 2 should **only include predoctoral outcomes** and should not include postdoctoral outcomes.
 - Table 5 has been **reorganized** to focus on trainee outcomes (that is, trainees are now in the first column). Programs can also include interim research products to which the trainees have contributed (such as preprints) when the final, peer-reviewed publication is not available.
 - Table 8 **no longer contains the section, “Part II. Those Clearly Associated with the Training Grant.”** As applicable, applicants can describe any additional impact of the training program on individuals who aren’t appointed to the grant as part of the program plan.
- As a reminder, **NIGMS does not use Table 6 for predoctoral training grant applications**, and it must not be included or the application will be withdrawn before review.
- **Resource page for [NRSA Tables and NIGMS Suggested Data Formats](#).**



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