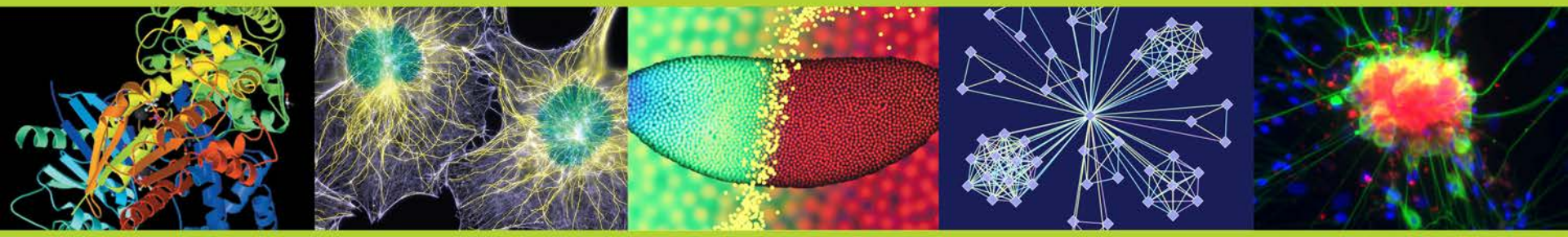
National Institute of General Medical Sciences

NIGMS Ruth L. Kirschstein NRSA Predoctoral Institutional Research Training Grant Programs (T32)

Shiva Singh, Jon Lorsch, Alison Gammie, and Stephanie Constant

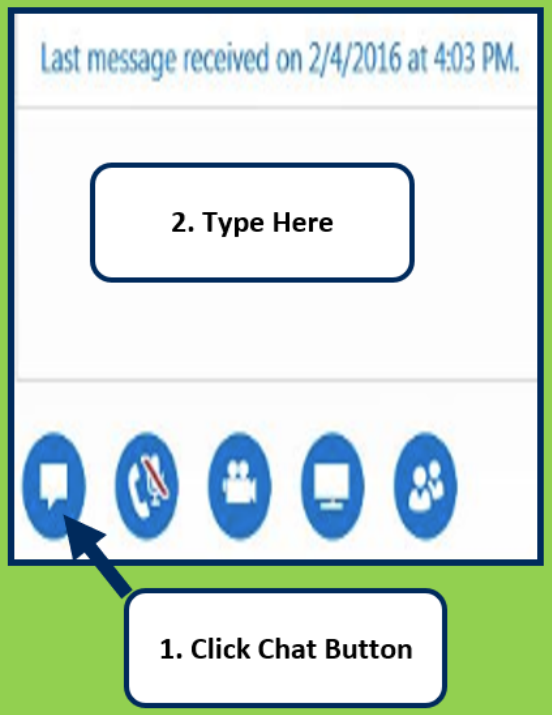
National Institute of General Medical Sciences, NIH



Today's Webinar Agenda

- **Introductions:** Shiva Singh, Chief, Predoctoral Training, NIGMS
- **Opening Remarks:** Jon Lorsch, Director, NIGMS
- **Overview and Details of the T32 Application Process:** Alison Gammie, Director TWD, NIGMS
- **Review of New T32 Applications:** Stephanie Constant, Chief OSR, NIGMS
- **Q & A Period**

Questions During the Webinar?



Ask on-line in the "Chat" box located on the lower left side of your screen (type in your question(s).

We will answer them during the Q & A period

DISCLAIMER

This webinar and accompanying slides are for informational purposes only. They serve as an overview of the T32 Predoctoral Training Programs 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 FOA and any Related Notices included in the FOA's Overview Information section.

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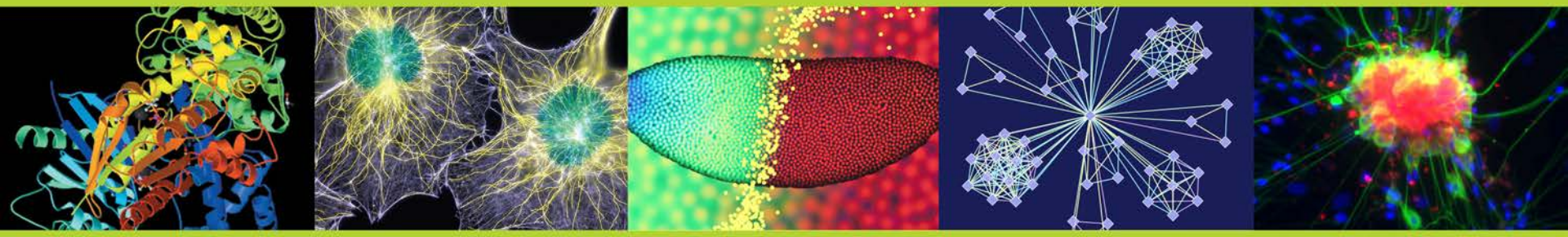
Opening Remarks

Jon Lorsch

Director, National Institute of General Medical Sciences



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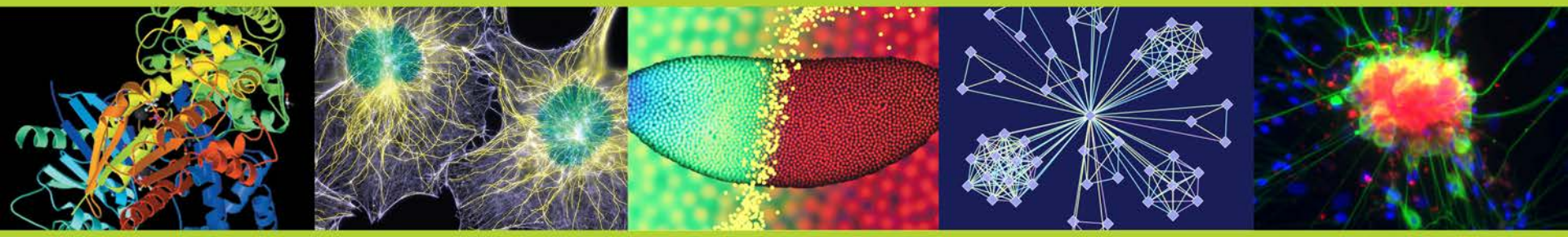
Graduate Research Training

Alison Gammie
Director Training, Workforce Development and Diversity
NIGMS



NIGMS Graduate Training – Basic Biomedical and Medical Science Training Programs (MSTP)

NIGMS intends to encourage changes in biomedical graduate training to keep pace with the rapid evolution of the research enterprise that is increasingly complex, interdisciplinary, and collaborative.

Programs should provide high-quality research training, mentored research experiences, and additional opportunities that equip trainees with the technical, operational and professional skills required for careers in the biomedical research workforce.

The intention is not to layer additional activities onto existing structures; instead, NIGMS encourages creative approaches to biomedical graduate training.

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
- **Rigor & transparency, responsible & safe conduct** of research throughout the training experience
- **Commitment to diversity & inclusion**
- **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

Program Objectives

Basic biomedical – To develop a diverse pool of well-trained scientists with the technical, operational, and professional skills necessary to conduct rigorous and reproducible research, and transition into careers in the biomedical research workforce.

MSTP – To develop a diverse pool of well-trained *physician-scientists* with the technical, operational, and professional skills necessary to conduct rigorous and reproducible research, and transition into careers in the biomedical research workforce that *utilize the dual-degree, and to become leaders in advancing the research to meet the health needs of the Nation.*

Proposed *Trainee* Focused Objectives: Technical/Operational Skills

- Broad understanding across biomedical disciplines, and the skills to independently acquire the knowledge needed to advance their chosen field
- The ability to think critically, independently and to identify important biomedical research questions and approaches that push forward the boundaries of their area of study

Proposed *Trainee* Focused Objectives: Technical/Operational Skills

- A strong foundation in rigorous research design, experimental methods, quantitative literacy & reasoning skills, data analysis & interpretation
- Experience initiating, conducting, interpreting, and presenting rigorous and reproducible biomedical research with increasing self-direction

Proposed *Trainee* Focused Objectives: Professional Skills

- The ability to work effectively in teams with colleagues from diverse cultural and disciplinary backgrounds, and to promote an inclusive, safe, efficient, productive, and supportive scientific research environments
- The skills and opportunities to communicate scientific research methodology and findings to a wide variety of audiences (e.g., discipline-specific, across disciplines, and the public)
- The knowledge, professional skills and experiences required to identify and transition into productive careers in the biomedical research workforce

Proposed *Trainee* Focused Objectives: MSTP Specific

- All the above with an additional emphasis on clinical skills
- The skills necessary to integrate research and clinical activities in support of a productive research career that combines both qualifications
- The ability to utilize clinical experience and observations to inform research projects and use research findings to inform clinical practice

Is my graduate program a good match with NIGMS?

Scientific Area?

Training areas correspond to the NIGMS-supported areas of basic biomedical sciences and/or other emerging areas within the NIGMS mission.

NIGMS T32 Program Areas

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

One area per institution, normally defined by a DUNS or Institution Profile (IPF) number

Application

Useful Websites

- **Basic Biomedical NIGMS T32 FOA:**
  https://grants.nih.gov/grants/guide/pa-files/PAR-17-341.html
- **MSTP NIGMS T32 FOA:**
  https://grants.nih.gov/grants/guide/pa-files/par-19-036.html
- **NIGMS Predoctoral Research Training Grant Website:**
  https://www.nigms.nih.gov/Training/InstPredoc/Pages/default.aspx
- **Predoctoral Training Grants FAQs:**
  https://www.nigms.nih.gov/training/instpredoc/Pages/predoc-training-grants-faqs.aspx
- **NIGMS T32 Staff:**
  https://www.nigms.nih.gov/training/instpredoc/pages/PredocDesc-Contacts.aspx

General Tips

- **Read the FOA and Notices.** These FOAs are significantly different from the parent FOA
- **Follow the FOA and Notice Instructions** in conjunction with the Training (T) instructions in the SF424 (R&R) Application Guide
- **Three options for submitting application:**
  - Grants.gov workspace
  - NIH ASSIST
  - Your institution's system-to-system
- **All applications are NEW:**

  https://grants.nih.gov/grants/guide/notice-files/NOT-GM-18-005.html

Strictly Adhere to Page Limits

Section of Application	Page Limits
Project Summary/Abstract	30 lines of text
Recruitment Plan to Enhance Diversity	3
Trainee Retention Plan	3
Program Plan	25
Plan for Instruction in Methods for Enhancing Reproducibility	3
Plan for Instruction in the Responsible Conduct of Research	3
Each Biographical Sketch	5
Institutional Support Letter	10

Program Plan

Rationale, Mission, Objectives & Overall Training Plan

- Training mission, objectives (specific, measurable)
- Rationale for the training program – describe distinctions/synergies with other NIH/NIGMS funded T32 programs
- How the training activities will build skills and attain objectives
- Plans for using evidence-based approaches to training
- Representative example(s) of training pathway(s)
- Explain how differences in backgrounds will be accommodated
- Enhancements to the training environment beyond the supported trainees
- For multidisciplinary programs - how does the training program integrate across the various departments

Career Development

- Introduce trainees to a range of careers in the biomedical research workforce [or research residencies for MSTP]
- Provide opportunities to develop needed skills and for experiential learning (internships, shadowing, informational interviews)
- Post outcomes

Program Oversight

- Ensure that trainees are in research environments that promote responsible conduct as well as rigor and transparency
- Oversight throughout the training process is essential
- Select faculty based on commitment to training and mentoring
- Provide mentor training
- Ensure faculty participate in career advising (e.g., use of IDPs)
- Provide a mechanism for
  - Matching mentors/mentees
  - Monitoring mentee/mentor relationships and plans for removing faculty showing poor mentorship qualities from the program

Institutional Commitment

- Values and promotes rigor and responsible conduct in research
- Ensures training continuity (start-up and bridging funds for faculty)
- Provides resources, and research infrastructure
- Supports PIs, training staff, and participating faculty (e.g., protected time)
- Values teaching and mentoring (e.g., in tenure and promotion)
- Provides support for remediation or removal from the training program poorly performing mentors
- Promotes diversity and inclusion at all levels of the research training environment (trainees, staff, faculty, and leadership)
- Ensures that the research [and clinical facilities] as well as the laboratory [and clinical practices] promote the safety of trainees
- Ensures that the research [and clinical facilities] are accessible to trainees with disabilities
- Promotes a positive, supportive and inclusive research, [clinical] and training environment for individuals from all backgrounds

Institutional Commitment, cont.

- Policies and procedure are in place to prevent and respond to discriminatory harassment and other discriminatory practices
- Ensures that trainees will continue to be supported when they transition from the training grant to other funding sources
- Provides resources and expertise for evaluating the training outcomes of the program.
- For institutions that have multiple graduate T32 training programs, the letter should also explain how the programs will synergize and share resources when appropriate, and how the training faculty, pool of potential trainees, and resources are sufficiently robust to support both the proposed and existing programs.
- If multiple institutions participate, plans for recruitment of trainees and faculty and integration of other program functions across the institutions should be described.
- **All information related to institutional support, as defined above, must be included within the 10-page limit of the letter**

Program Directors/Principal Investigators

- Scientific expertise, administrative and training experiences
- Sufficient bandwidth to oversee the program
- Record of using rigorous and transparent methods in experimental design, data collection, analysis, and reporting
- Demonstrated commitment to training the next generation of biomedical research workforce
- Received training to mentor individuals from diverse backgrounds
- Multiple PDs/PIs approach is encouraged

Preceptors/Mentors (Program Faculty)

Create a diverse team (e.g., from underrepresented backgrounds, women, and faculty at different career stages). Select individuals who:

- Display a commitment to training
- Have the appropriate scientific expertise, resources, and the bandwidth to provide research training
- Provide opportunities to initiate, conduct, interpret, and present rigorous and reproducible research with increasing self-direction
- Promote the development of trainee skills in approaches to rigorous experimental design, methods of data collection, data analysis
- Are committed to effective mentoring, and promoting inclusive, safe, and supportive environments

Trainee Positions, Recruitment, Retention

- **Strong justification** for number of requested trainee positions in context of other NIGMS-funded training grants
- Recruit individuals from diverse backgrounds
- Implement holistic approaches to admissions
- Provide the rationale for training appointments (encouraged to appoint trainees early graduate training, e.g., years 1-3)
- Expand upon trainee retention plan with oversight throughout the entire time in graduate training

Training Outcomes – Tables must match the narrative

- Provide evidence that trainees advanced scientific knowledge and/or techniques, with increasing self-direction (e.g., first author publications)
- Degree completion and time to degree. Compare individuals from underrepresented groups with those from well-represented groups.
- Success of graduates transitioning to careers in the biomedical research workforce. Use Training Table 8A (III) to provide data for five years of recent graduate outcomes, but may describe up to 15 years in the narrative.
- **MSTP** – Outcomes for individuals participating in research-based residencies. Long-term outcomes – are they physician-scientist leaders?

Program Evaluation

- Assessment process to determine whether the overall program is effective in meetings its goals and objectives
- Whether the scientific research climate is inclusive, safe and supportive of trainee development
- Plans for being responsive to internal/external outcomes analyses, critiques, surveys, and evaluations
- Plan to track trainee and career outcomes and make this data publicly available

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

- Describe how RCR components are well integrated into the overall curriculum at multiple stages of trainee development.
- 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 of responsible conduct when trainees are performing research in their labs.

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

Plan for Instruction in Methods for Enhancing Reproducibility (3 pages)

- Describe how trainees will be instructed in principles important for enhancing research reproducibility, including evaluation of foundational research underlying a project, rigorous experimental design and data interpretation, consideration of relevant biological variables, authentication of key biological and/or chemical resources, data and material sharing, record keeping, and transparency in reporting
- 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
- Describe how all program faculty will reiterate and augment key elements of methods for enhancing reproducibility when trainees are performing research in their labs

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 Biosketches - *with personal statement addressing*

- Training, mentoring, and promoting inclusive, safe and supportive scientific research environments
- Maintaining a record of, and providing training in rigorous and unbiased experimental design, methodology, analysis, interpretation, and reporting of results
- Supporting trainees participating in activities required to identify and transition into careers in the biomedical research workforce
- Fulfilling the need of the trainees to complete their Ph.D. training in a timely fashion with the skills, credentials and experiences to transition into careers in the biomedical research workforce.

Other Required Components

- **Letters of Support** – Mandatory Institutional Letter
- **Training Data Tables** for new applications for predoctoral programs (Tables: 1, 2, 3, 4, 5A, 6A, 8A, Part III). Check that they are internally consistent and that they match the narrative.
  - **New T32 Data Tables & Instructions:** http://grants.nih.gov/grants/funding/424/datatables.htm
  - **FAQs**: http://grants.nih.gov/grants/forms_updates_faq.htm#4802
  - **xTRACT User Guide and Resources**: https://era.nih.gov/modules_user-guides_documentation.cfm
  - **xTRACT videos:** https://era.nih.gov/era_training/era_videos.cfm

Attachments

- Advisory Committee (Optional)
- **Recruitment Plan to Enhance Diversity (Required)**
- **Trainee Retention Plan (Required)**

Recruitment Plan to Enhance Diversity (3 pages)

- Describe outreach strategies and activities to recruit trainees from underrepresented groups (see NOT-OD-18-210).
- 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

Trainee Retention Plan (3 pages)

- Describe efforts to sustain the scientific interests 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 is not sufficient
- Resources:
  https://www.nigms.nih.gov/training/diversity/pages/approaches.aspx

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

Appendices Basic Biomedical

- **Required**
  - Responsible Conduct of Research Syllabus
- **Allowable**
  - Courses, Electives and Training Activities (total of 4)
  - Evaluation and Assessment Instruments
  - Trainee Appointment Procedures (3 pages)
  - Conflict Resolution Protocols (3 pages)

Appendices MSTP

- **Required**
  - *Required Training Activities*
  - Responsible Conduct of Research Syllabi
  - *Trainee Appointment Procedures (3 pages)*
- **Allowable**
  - Elective Activities (total of 4)
  - Evaluation and Assessment Instruments
  - Conflict Resolution Protocols (3 pages)

Application Budget

- Use PHS 398 Training Budget Form
- Stipends - use current level (published annually)
- Tuition/Fees - Request total needs (do not apply NIH formula in application budget)
- Travel ($300 per trainee)
- Training Related Expenses (TRE)
  - Use current level (published annually)
  - Includes health insurance (if same health insurance fees are charged to non-federally-supported trainees at your institution)
  - Indirect costs – 8% (base excludes: tuition/fees, equipment, subs > $25,000)

Important Dates

Application Due date(s): May 25, September 25, and January 25

- **Next due date:** May 25, 2019; by 5:00 PM local time of applicant organization

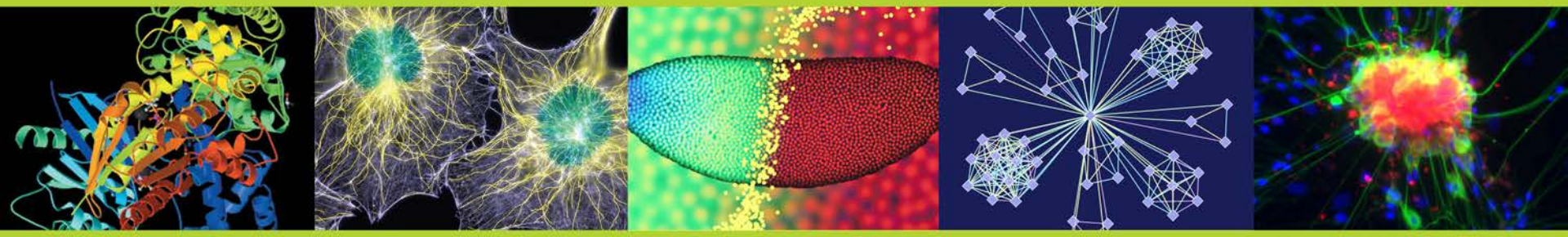
  Submit early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date

- **Peer Review:** October – November 2019
- **Advisory Council Review:** January 2020
- **Earliest Start Date:** July 2020

National Institute of General Medical Sciences

Review of New T32 Applications

Stephanie Constant, PHD
Chief, Office of Scientific Review
National Institute of General Medical Sciences



TWD Standing Committees

- TWD-A
  - Dr. John Laffan (laffanjo@nigms.nih.gov)
- TWD-B
  - Dr. Lisa Newman (newmanla2@mail.nih.gov)

- 21 members on each committee
- All members have strong expertise in Graduate Training
- Diversity and gender distribution
- Geographic distribution
- Supplemented with Ad hoc members

TWD Standing Committees: New FOAs

- Expanded expertise recently added:
  - Evaluations / Outcomes Analysis
  - Career Outcomes in Graduate Education
  - Training in Alternative Careers

- Two-year membership:
  - Allow additional expertise to be added as needed
  - Membership may be renewed

https://public.era.nih.gov/pubroster/jsp/proster.jsp?CID=104227
https://public.era.nih.gov/pubroster/jsp/proster.jsp?CID=104228

Reviewer Orientations – new FOAs

Orientation Logistics

- Webinars that included both program + review staff
  - Held jointly for TWD-A and TWD-B committees to ensure consistency across review panels.

- At review meeting
  - Reviewers were reoriented and were able to ask questions from program + review staff before review meeting started.
  - Program + review staff were present throughout the meeting to provide additional clarification as needed.

- Feedback after meeting
  - Reviewers were given an opportunity to provide feedback on any sticking points for future orientations.

Reviewer Orientations – new FOAs

Additional overarching themes of T32 FOAs

1. **Trainee skills development** – use evidence-based approaches to provide technical, operational and professional skills
2. **Specific Aims** - obtainable and measurable training objectives
3. **Rigor & transparency, responsible & safe conduct** of research throughout the training experience
4. **Commitment to diversity & inclusion**
5. **Mentor training and oversight** of trainee/mentor matches
6. **Career preparedness** – provide knowledge of and skills to transition into the range of careers in the biomedical research workforce
7. **Strong institutional support** for research training
8. **Evaluation** - the collection and dissemination of data on the success/failure of educational aims; make career outcomes publicly available

Reviewer Orientations – new FOAs

Examples of specific points emphasized

- Forget old review criteria – bring in the new
  - New review criteria match exactly instructions to applicants

- These are <u>new</u> training programs, e.g.
  - Evaluate what is being proposed, not what previously had (although applicants can include information on previous training programs, inc. non-GM, in text)
  - Applicants must justify number of slots for proposed <u>new</u> program

- Holistic approaches to education, e.g.
  - Focus on trainees getting rounded education, not just research experience
  - Embracing multiple biomedical career paths
  - Importance of Rigor & Reproducibility throughout training

- Evaluations / Outcomes, e.g.
  - Not just long-term outcomes, but also measurable short-term outcomes

Review of Applications – Basic Sciences

Only the review criteria listed in the FOA are considered.

Overall Impact: Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the proposed training program will produce a diverse pool of well-trained scientists with the technical (e.g. appropriate methods, technologies, and quantitative/computational approaches), operational (e.g. independent knowledge acquisition, rigorous experimental design, and interpretation of data), and professional (e.g. management, leadership, communication, and teamwork) skills necessary **to conduct rigorous and reproducible research, and transition into careers in the biomedical research workforce**, in consideration of the following review criteria and additional review criteria (as applicable for the project proposed).

Review of Applications – MSTP

Only the review criteria listed in the FOA are considered.

Overall Impact: Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the proposed integrated training program will produce a diverse pool of highly skilled physician-scientist leaders trained in both rigorous scientific research and clinical practice. The trained physician-scientists should have the technical (e.g. appropriate methods, technologies, and quantitative/computational approaches), operational (e.g. independent knowledge acquisition, rigorous experimental design, and interpretation of data), and professional (e.g. management, leadership, communication, and teamwork) skills **necessary to transition into careers in the biomedical research workforce that utilize the dual-degree and to become leaders in advancing the research to meet the health needs of the Nation**.

Review of Applications

Only the review criteria listed in the FOA are considered.

- Scored Review Criteria
  - Training Program and Environment
    - Rationale, Mission, Objectives, and Overall Training Plan
    - Career Development
    - Program Oversight, Program / Participating Faculty Selection, and Mentor Training
    - Institutional and Departmental Commitment to the Program
  - Training Program Director(s)
  - Preceptors/Mentors (Program / Participating Faculty)
  - Trainee Positions, Recruitment and Retention
  - Training Record
    - Training Outcomes
    - Program Evaluation

Review of Applications

Only the review criteria listed in the FOA are considered.

- Additional Review Criteria (part of overall impact score but no separate score)
  - [Protections for Human Subjects, Vertebrate Animals, Biohazards]
  - Training in Methods for Enhancing Reproducibility [plan] – **NOT TBPub**
- Additional Review Considerations (no separate scores and not considered in overall impact score)
  - [Select Agents Research]
  - Recruitment Plan to Enhance Diversity [plan] – ACCEPTABLE Y/N?
  - Training in the Responsible Conduct of Research [plan] – ACCEPT Y/N?
  - Budget and Period of Support (# Trainee Slots)

Reminder: All Applications are New

The following content is **NOT allowed anywhere** in a New Application or its associated components (e.g., the appendix, letters of support, other attachments):

- Introduction page(s) to respond to critiques from a previous review
- Mention of previous overall or criterion scores or percentile
- Mention of comments made by previous reviewers
- Mention of how the application or project has been modified since its last submission
- Marks in the application to indicate where the application has been modified since its last submission
- Progress Report (Type 2 / Renewals)

A New Application that does not conform to the rules for a New Application will not be reviewed and will not be considered for funding - https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-197.html

Reminder: Training Data Tables

- All new applications are required to have:
  - Table 1
  - Table 2
  - Table 3
  - Table 4
  - Table 5A
  - Table 6A
  - Table 8A (part III)

  Applications that do not contain these tables, or submit any additional tables in this attachment, will be considered noncompliant and will not be reviewed - https://grants.nih.gov/grants/guide/notice-files/NOT-GM-18-040.html

- Applications may include data on previous training programs in tabular form in the text section – evaluated as "Preliminary Data" only.
- Please label any other types of Tables using A-Z to avoid confusion.

Reminder: Other Attachments

- Not required, but allowed
  - An Advisory Committee (do not name members)

- Required
  - Recruitment Plan to Enhance Diversity (3 pages max)
  - Trainee Retention Plan (3 pages max)

Applications that do not contain FOA required attachments will be considered noncompliant and will not be reviewed - https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-105.html

Reminder: Institutional Letter of Support

Required

- All requested information must be contained within a single letter – cannot distribute across several letters by different authors.
- If multiple Deans involved then all should sign letter.
- This includes latest requirement for language regarding oversight of discriminatory harassment and other discriminatory practices.
- Letter = 10 pages maximum

Applications that distribute this information amongst multiple letters will be considered non-compliant and will be withdrawn- https://grants.nih.gov/grants/guide/notice-files/NOT-GM-18-040.html

Note that LOS from other individuals is allowed with no page limits.

Reminder: Appendix Materials – Basic Sciences

- Allowable for all FOAs – blank data collection forms, simple lists of interview questions, blank informed consent forms

- For this T32 FOA
  - Required
    - Responsible Conduct of Research Syllabus
  - Allowable
    - Courses, Electives and Training Activities (total of 4)
    - Evaluation and Assessment Instruments
    - Trainee Appointment Procedures (3 pp max)
    - Conflict Resolution Protocols (3 pp max)

Consequence for Submitting Disallowed Materials: withdrawal of application without review - https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-126.html

Reminder: Appendix Materials – MSTP

- Allowable for all FOAs – blank data collection forms, simple lists of interview questions, blank informed consent forms

- For this T32 FOA
  - Required
    - Required Training Activities
    - Responsible Conduct of Research Syllabi
    - Trainee Appointment Procedures (3 pp max)
  - Allowable
    - Elective Activities (total of 4)
    - Evaluation and Assessment Instruments
    - Conflict Resolution Protocols (3 pp max)

Consequence for Submitting Disallowed Materials: withdrawal of application without review - https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-126.html

Feedback from Reviewers

- Rigor & Reproducibility training needs to be integrated throughout the application – scorable criterion.
  - Not sufficient to just describe in the Training in Methods for Enhancing Reproducibility plan (will now be included in overall impact score)

- Enhancing Diversity applies both to trainees and mentors within the application – scorable criterion.
  - Not sufficient to just describe in the Recruitment Plan to Enhance Diversity
  - If there are deficiencies then describe how you will address these

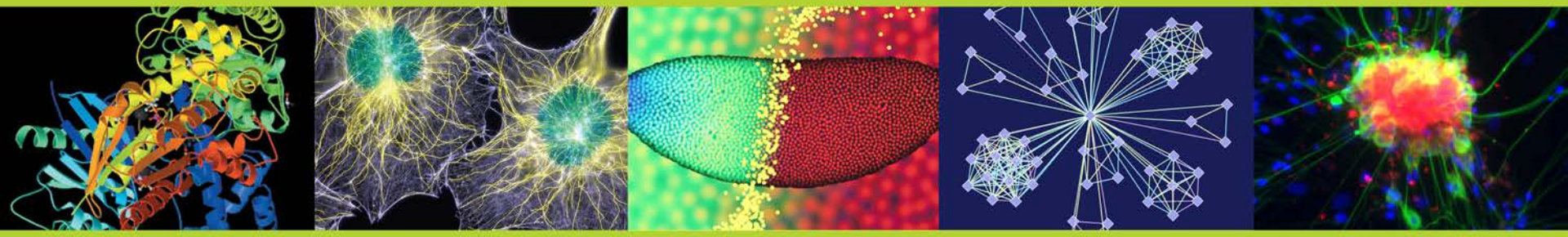
- Don't forget innovation!
  - What is unique about this program relative to other training programs both within and outside of your institution
  - Just using the word "holistic" is not sufficient – how is your approach holistic?

Feedback from Reviewers

- Evaluations component is limited / not well designed
  - Consider reaching out to colleagues with evaluations experience + other resources
  - Discuss both short- and long-term evaluation goals
- Institutional Letter is weak / lacking content
  - Institution needs to show they are making a true commitment to the program
- Consider including transition plans
- Biosketch personal statements are missing commitment language
- Need to justify number of trainee slots requested
  - Having had a certain number in a previous program is not sufficient justification
  - Describe your pool of TGE students, the resources and mentors available to support the proposed number, etc.
  - Anything outside NIGMS guidelines (i.e. early years and no more than 2 years of funding for each trainee) must be extremely well justified

Questions?

Shiva Singh: singhs@nigms.nih.gov

Alison Gammie: alison.gammie@nih.gov

Stephanie Constant: stephanie.constant@nih.gov