The NIH Blueprint ENDURE Program Webinar

- Thank you for joining the webinar. We will begin shortly.

- Listen to the webinar via your computer speakers or dial in using the telephone number provided on the screen.

- Type any questions into the Q&A box. Questions will be addressed after the presentation.

- The recording and webinar resource materials will be available in a few weeks.
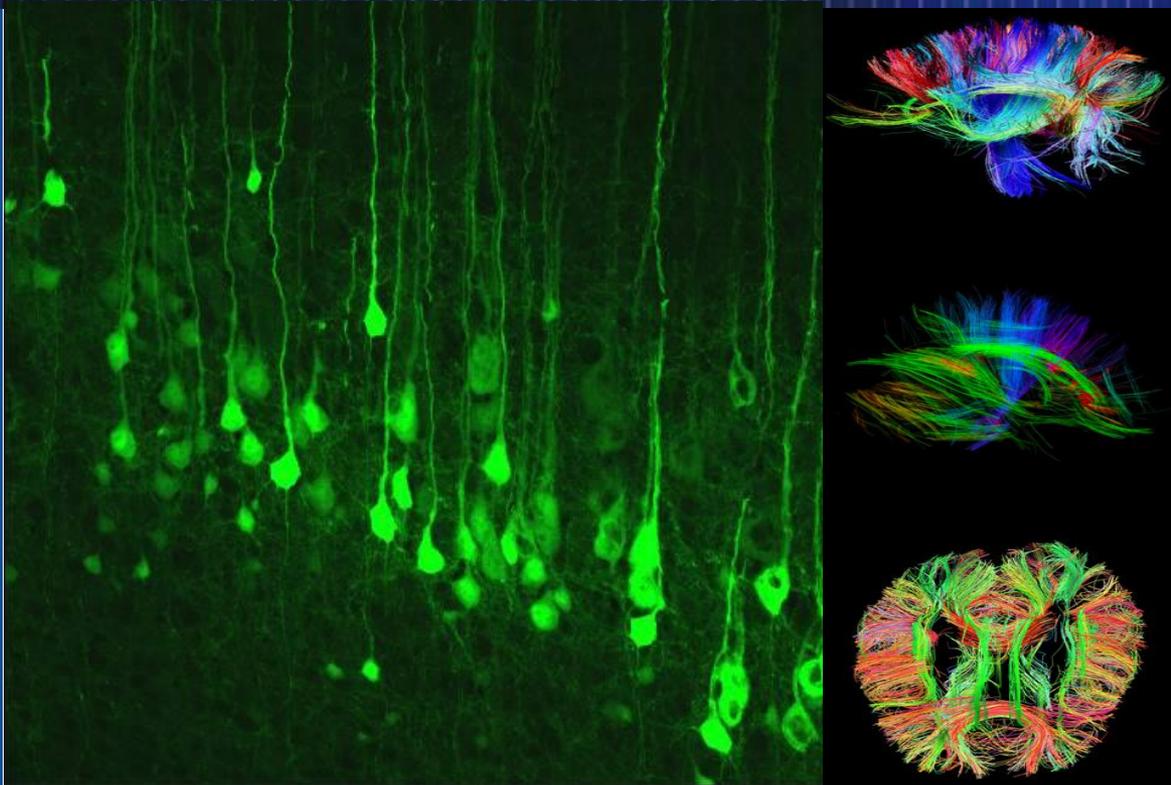
Questions

- You will be muted during the webinar

- Type your questions into the Q&A box

- Q&A will be at the end of the webinar
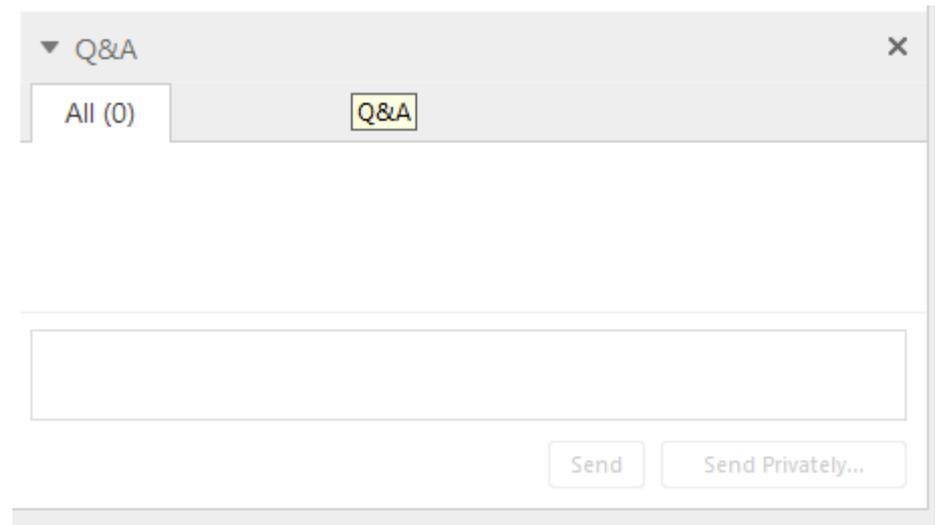
Outline of the Webinar

- Introductions
- Overview NIH Blueprint, ENDURE Program Goals and Structure
- Application Components
- Review Criteria
- Q&A

Speakers

Michelle Jones-London, PhD
Chief
Office of Programs to Enhance Neuroscience Workforce Diversity (OPEN)
NINDS/NIH

Mark Chavez, PhD
Division of Adult Translational Research and Treatment Development, NIMH/NIH

Lynn Morin
Training and Diversity Programs Coordinator
Office of the Director
NIAAA/NIH

Lauren Ullrich, PhD
Scientific Program Manager
Office of Programs to Enhance Neuroscience Workforce Diversity (OPEN)
NINDS/NIH

Overview NIH Blueprint, ENDURE Program Goals and Structure

Background

- In 2014, ~11% of those enrolled in U.S. neuroscience graduate programs were from underrepresented groups.*

- Remaining a global leader in scientific discovery and innovation is dependent upon a pool of highly talented scientists from diverse backgrounds who will help to further NIH's mission

- A diverse workforce results in higher-quality scientific research through greater innovation, creativity, and discovery (Nelson and Quick, 2012; Page, 2007).

*National Science Foundation, National Center for Science and Engineering Statistics. 2015. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 2015*. Special Report NSF 15-311. Arlington, VA. Available [here](#).

NIH Blueprint: NIH Neuroscience Partnership

- The NIH Blueprint is a collaborative and coordinated effort across 12 NIH Institutes and Centers (see components of participating organizations in FOA).

- ENDURE is cross-cutting and will benefit the entire neuroscience community.

- ENDURE enhances a diverse neuroscience pipeline to academic/research careers with potential benefit to all neuroscience ICs.

Participating NIH Institutes and Centers

- NEI
- NIA
- NIAAA
- NIBIB
- NICHD
- NIDCR
- NIDA
- NIEHS
- NIMH
- NINDS
- NINR
- NCCIH

NIH Blueprint ENDURE: Facilitate transition from undergraduate to graduate school

- In FY2010, the NIH BP established the ENDURE Program (R25)

- 2010 RFA: 15 applications, 5 awarded

- 2014 RFA: 18 applications, 6 awarded

- RFA-NS-19-007 - **Due Date: February 15, 2019**

- Engage undergraduates from underrepresented groups in a two-year neuroscience research program

- Matriculation into neuroscience Ph.D. programs

- Value of networking and creating a broad neuroscience community of student scholars

- Redefining the "halo effect" for diverse neuro-trainees

Institutional Eligibility

- Participating components of the collaborative research education partnerships should include:

    1. <u>One or more</u> institutions that either:
        a) **have a historical and current mission** to educate students from any of the populations that have been identified as underrepresented in biomedical research as defined by the NSF; i.e., African Americans or Blacks, Hispanic or Latino Americans, American Indians, Alaska Natives, Native Hawaiians, U.S. Pacific Islanders, and persons with disabilities) **OR**
        b) **have a documented track record** of recruiting, training and/or educating, and graduating underrepresented students as defined by NSF (see above), which has resulted in increasing the institution's contribution to the national pool of graduates from underrepresented backgrounds who pursue biomedical research careers;

    2. A research-intensive institution, defined as having an existing neuroscience or neuroscience-related program and a significant number of potential mentors with NIH R01 or equivalent extramural research support;

    3. Formal alliances with one or more institutions with neuroscience-focused graduate research training programs that can provide summer research experiences

Required ENDURE Program Components

School Year	Summer

- Part-time research
- Dedicated Mentoring
- Courses for professional and skills development

- Full-time research
- Networking

- Over two years, ENDURE students:

  – Participate in year-round authentic neuroscience research experiences

  – Develop technical, research, and professional skills

  – Receive outstanding mentorship

  – Network with graduate programs

  – Form a diverse and vibrant neuroscience community

Required Program Components

- Research experiences
  - part-time authentic neuroscience research experiences in extramurally-funded laboratories during the academic year
  - full-time summer neuroscience research experiences in laboratories that are part of a **neuroscience-focused graduate program**

- Mentoring activities
  - provide students with outstanding mentoring and education in critical skills such as leadership, grant and manuscript writing, and time management
  - modules for faculty to learn how to advise and mentor students from different backgrounds should be a component of a well-designed program

- Courses for skills development
  - courses should be integrated across the partnering institutions
  - approaches may include, but are not limited to:
    - core neuroscience coursework
    - courses on development of experimental rigor and quantitative skills
    - curriculum for specialized research techniques;
    - seminars emphasizing scientific reading comprehension, writing, and oral presentation skills;
    - research career seminars

In 5-year period of award:

- **~ 1700 research hours (per student) upon completion in ENDURE program**

- Poster and oral presentations at conferences

- Peer reviewed publications when feasible

- Research experiences with scientific rigor, preparatory neuroscience coursework, and competitive CVs

- Increased # diverse undergraduates entering Neuroscience PhD programs

- Neuroscience networks to facilitate the transition from undergraduate to graduate school

Not One Size Fits All – Lessons Learned

- Holistic approach – taking advantage of institutional strengths and community attributes

- Reaching students earlier (sophomores and juniors)

- Recruitment of diversity within diversity

- Screening genuine interest in PhD career track

- Balancing schedule of professional development activities during academic year for undergraduates

- Value of networking (neuro-pizza nights, science retreats, BP-ENDURE panel discussions) and creating a scientific community

- Impacting research exposure AND other factors that affect graduate school admissions process (oral presentations, interviewing skills, neuroscience courses, and scientific writing)

Specific Lessons Learned for Partnerships

- Synergy with existing programs –integration and collaboration are necessary, leverage added value

- Distant summer research experiences need uniformity in the mentoring and supervision received by all trainees (requires careful oversight from ENDURE PI)

- Need bilateral education – trainees and admission committees

- Partners with vested interest and commitments to goals of the program, not just a brief summer guest

Letter of Intent

- Send a letter indicating the institution's intent to submit an application to this funding opportunity, via email, to: jonesmiche@ninds.nih.gov by Jan. 15, 2019

- Include the following information:
  - Name, address, email and telephone number of the nominee
  - Name of the primary sponsor
  - Likely title of the application
  - Participating institution(s)
  - Number and title of this funding opportunity

Application Components
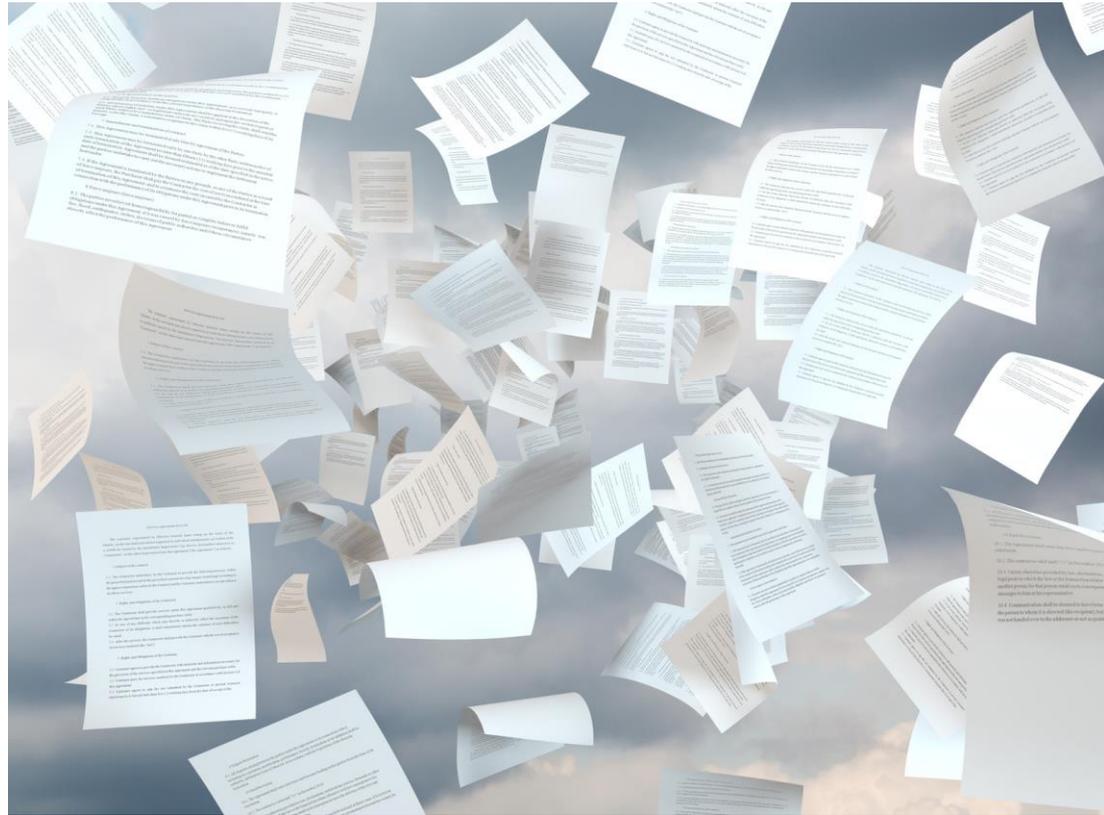
General Guidance

- Read the entire FOA, including the review criteria

- Read the Research (R) Instructions of the SF424 Application Guide

Grants Application Package

Mandatory Components

- SF424 (R & R)

- PHS 398 Cover Page Supplement

- Research And Related Other Project Information*

- Project/Performance Site Location(s)

- Research and Related Senior/Key Person Profile (Expanded)

- Research & Related Budget*

- PHS 398 Research Plan*

- PHS Human Subjects and Clinical Trials Information

*Additional instructions in FOA

Application Components

- Research And Related Other Project Information
  - Other Attachments:
    - Facilities & Other Resources
      - Describe the educational environment. List all thematically related sources of support for research training and education
    - Advisory Committee
      - Provide a plan for the appointment of an Advisory Committee to monitor progress of the research education program.
    - Institutional Information
      - Provide a description and evidence of the institution's explicit accomplishments in the education of students from backgrounds underrepresented in biomedical research.

Application Components

- ## Research & Related Budget

  – Include all personnel other than the PD(s)/PI(s) in the Other Personnel section, including clerical and administrative staff

  – Use the section on Participant/Trainee Support Costs to include all allowable categories of funds requested to support participants in the program

  – BP-ENDURE applications must present an integrated set of development activities and therefore a single consolidated budget is required. Each item in the budget must be clearly justified. BP-ENDURE grant awards include some restrictions as to how the funds may be used

BP-ENDURE Program Budget

Provides salary & fringe benefits for student research and other academic development activities that are not part of their on-going graduation requirements

- This includes:
    - Wages up to $10 per hour
    - Maximum of 15 research hours per week during the academic year
    - 40 hours per week during the summer
    - Travel and housing allowance at remote summer research site
    - Travel costs for Annual BP-ENDURE pre-satellite and SfN meeting
- Provides support for curriculum and academic developmental activities
- Does not provide funds for tuition, faculty salary, or for research mentoring/academic advising
- Capped support for the program administrators and administrative support (25% of DC)

National Institute of
Neurological Disorders
and Stroke

Application Components

- Some of the **non-allowable** costs under BP-ENDURE:
  - Undergraduate student tuition, housing, or food, during the academic year
  - Foreign travel and recruitment expenses
  - Student support in the form of a "stipend" (note: "stipend differs technically from "salary/wages" described above which is allowable)
  - Support for students not matriculated at one of the partnering institutions
  - Costs for textbooks, incentives (including laptop computers), memberships, or subscriptions to Internet services or journals
  - Support for faculty research or purchase of research equipment
  - A summer "stand-alone" program for students not matriculated as full-time students at one of the applicant institutions

Application Components

- ## PHS 398 Research Plan
  - The **Research Strategy** section must be used to upload the **Research Education Program Plan**, which must include the following components described below:
    - Proposed Research Education Program
    - Program Director/Principal Investigator
    - Program Faculty
    - Program Participants
    - Institutional Environment and Commitment
    - Diversity Recruitment Plan
    - Plan for Instruction in the Responsible Conduct of Research
    - Evaluation Plan
    - Dissemination Plan

Application Components

- Proposed Research Education Program
  - Overall goals and specific measurable objectives
  - Programmatic detail and rationale on the program
  - Milestones and benchmarks
  - Selection and retention process for participants
  - Demonstrate that participants will have authentic, meaningful research experiences
  - Alliances for participant summer research experiences

Application Components

- Examples of measurable objectives for the Proposed Research Education Program include:

  - number of students matriculating through the research education programs and admitted to graduate programs in the neurosciences;

  - improvement in students' quantitative skills and academic achievement; and

  - improvement in scientific writing and presentation skills

Application Components

- Program Director/Principal Investigator
  - Arrangements for administration
  - PD(s) is actively engaged in research and/or teaching and can organize, administer, monitor, and evaluate the program
  - Institutional and community commitment and support
  - For programs proposing multiple PDs/PIs, describe the complementary expertise of the PDs/PIs; their leadership approach, and governance
  - Work with the program evaluator
  - Role of the BP-ENDURE advisory committee

Application Components

- ## Program Faculty

  - Researchers from diverse backgrounds, including racial and ethnic minorities, persons with disabilities, and women are encouraged to participate as program faculty

  - Faculty should have research expertise and experience relevant to the proposed program and demonstrate a history of, or the potential for, their intended roles

  - May include faculty biosketches

Application Components

- Program Participants
  - Intended participants, eligibility criteria
  - Description (including number and percent) of the potential applicant pool
  - Process for selection of participants.
  - Retention strategies and follow-up activities across the participating institutions

Application Components

- Institutional Environment and Commitment
  - Describe the institutional environment
  - Evidence of institutional commitment to the research educational program is required
  - Each of the collaborative sites must include:
    - Letter of institutional commitment (letter of support),
    - Description of their research education experience and resources,
    - Research funding of participating faculty (can include biosketches of participating faculty), and
    - Plan for how the research education and research experience activities will be integrated across the different sites.
  - Describe the direct lines of communication and site-specific responsibilities

Application Components

- Diversity Recruitment Plan
  - New applications must include plans to enhance recruitment of the potential candidates for available training opportunities
  - Renewal applications must include a detailed account of experiences in recruiting individuals from underrepresented groups during the previous funding period
  - Applications lacking a diversity recruitment plan will not be reviewed

Application Components

- Plan for Instruction in the Responsible Conduct of Research
  - Must be included
  - Standard RCR

Application Components

- ## Evaluation Plan
  - Based on appropriate literature and cited methodology
  - Specific plans and procedures must be described to capture, analyze and report short or long-term outcome measures
    - Baseline data and milestones for accomplishments
    - Tracking and monitoring participants' progress
    - Feedback from participants
    - Impact of the program on the institution's baseline numbers and efforts to accomplish the proposed goals of increasing the diversity of the workforce
  - Identify the selected evaluator
  - Applications that lack an evaluation plan will not be reviewed

Application Components

- Dissemination Plan
  - Plan to disseminate nationally any findings
    - sharing course curricula and related materials via web postings, presentations at scientific meetings, workshops
  - Publication of the program's findings and outcomes in peer-reviewed journals is highly encouraged

Application Components

- **Letters of Support** (no page limit)
  - A letter of institutional commitment must be attached as part of Letters of Support
  - Letters of collaboration from partner sites must be provided by authorized officials from the partner institutions addressing their institutional commitment to the proposed project and ENDURE program goals
  - As applicable, key faculty or senior investigators at partner organizations who will have substantial involvement (can also include biosketches)

Application Components

- Allowable Appendix Materials (NOT-OD-18-126):
  – **Blank** data collection forms, blank survey forms and blank questionnaire forms
  – Simple **lists** of interview questions
  – **Blank** informed consent/assent forms
- **Your application will be withdrawn if anything else is in the Appendix**
- Blank forms and lists **do not** include items such as: data, data compilations, lists of variables or acronyms, data analyses, publications, manuals, instructions, descriptions or drawings/figures/ diagrams of data collection methods or machines/devices

Review Criteria

Review Criteria

- **Significance**
  - Does the proposed program address a key audience and an important aspect or important need in research education?

  - Is there convincing evidence in the application that the proposed program will significantly advance the stated goal of the program?

  - Will the proposed BP-ENDURE program significantly improve the institutional baseline number of students from the partnering institutions that enter high-quality, competitive graduate programs in the neurosciences?

Review Criteria

- **Investigator(s)**
    - Is the PD/PI capable of providing both administrative and scientific leadership to the development and implementation of the proposed program?
    - Is there evidence that an appropriate level of effort will be devoted by the program leadership to ensure the program's intended goal is accomplished?
    - If applicable, is there evidence that the participating faculty have experience in mentoring students and teaching science?
    - If applicable, are the faculty good role models for the participants by nature of their scientific accomplishments?
    - If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Review Criteria

- **Innovation**
  - Taking into consideration the nature of the proposed research education program, does the applicant make a strong case for this program effectively reaching an audience in need of the program's offerings?
  - Where appropriate, is the proposed program developing or utilizing innovative approaches and latest best practices to improve the knowledge and/or skills of the intended audience?

Review Criteria

- **Approach**
  - Does the proposed program clearly state its goals and objectives, including the educational level of the audience to be reached, the content to be conveyed, and the intended outcome?
  - Is there evidence that the program is based on a sound rationale, as well as sound educational concepts and principles?
  - Is the plan for evaluation sound and likely to provide information on the effectiveness of the program?
  - Are the planned recruitment, retention, and follow-up (if applicable) activities adequate to ensure a highly qualified participant pool?
  - Do the proposed research experiences and courses for skills development meet the needs of participating students who are enrolled full-time at one of the applicant institutions, including those from underrepresented groups, and are they designed to support their competitiveness for completion of a Ph.D. degree in neuroscience?
  - Does the program demonstrate that participants will have authentic, meaningful research experiences in neuroscience-related laboratories?

Review Criteria

- ## **Environment**
  - Will the scientific and educational environment of the proposed program contribute to its intended goals?
  - Is there a plan to take advantage of this environment to enhance the educational value of the program?
  - Is there tangible evidence of institutional commitment?
  - Is there evidence that the faculty have sufficient institutional support to create a sound educational environment for the participants?
  - Where appropriate, is there evidence of collaboration and buy-in among participating programs, departments, and institutions?
  - How well and in what ways does this program interact with on- and off-site neuroscience training programs (including NIH-supported T32 training programs)?
  - Is there evidence of commitment and integration with the T32 program beyond summer research exposure (for example, graduate program faculty involved in teaching the undergraduate program during the academic year or research seminars)?

Review Criteria

- **Additional Review Considerations**
  - **Evaluation Plan**
    - Are the evaluation plan and timeline adequate for assessing the effectiveness (process and outcome) of the program?
    - If applicable, are the plans for obtaining feedback from participants adequate?
    - What is the overall performance evaluation plan?
  - **Dissemination Plan**
    - Is the dissemination plan strong and of high quality?
  - **Recruitment Plan to Enhance Diversity**
    - Reviewers will examine the strategies to be used in the recruitment of individuals from underrepresented groups.
  - **Training in the Responsible Conduct of Research**
    - The reviewers will evaluate the adequacy of the proposed RCR training in relation to the five required components

Questions?

- Initial Point of Contact:
  - Michelle Jones-London, PhD
  - National Institute of Neurological Disorders and Stroke (NINDS)
  - jonesmiche@ninds.nih.gov

Q&A