Pre-Application Webinar: Genome Research Experiences to Attract Talented Undergraduates into the Genomics Field to Promote Diversity *(GREAT Program)*

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Webinar Process

- Assisted by Amber Jackso, Jerryl Somani, Alvaro Encinas

- Presentation first, followed by Q&A

- All webinar participants on mute

- Please ask questions in Q&A box

- Anonymous submissions allowed

- Chat is disabled

- Your questions will be rendered into FAQs with our answers posted on GREAT website

- Webinar is being recorded and will be posted

Relevant Links for GREAT Program

- RFA-HG-21-033: https://grants.nih.gov/grants/guide/rfa-files/RFA-HG-21-033.html

- Webinar Link: https://www.genome.gov/event-calendar/GREAT-pre-application-webinar

- FAQ link: https://www.genome.gov/event-calendar/GREAT-pre-application-webinar/FAQ

- 2020 NHGRI Strategic Vision: genome.gov/2020SV

- Concept Clearance: https://www.genome.gov/event-calendar/92nd-Meeting-of-National-Advisory-Council-for-Human-Genome-Research

- Email Contacts: gatlincl@nih.gov

Outline

A   C   G
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- Background
- Purpose
- Programmatic Approach
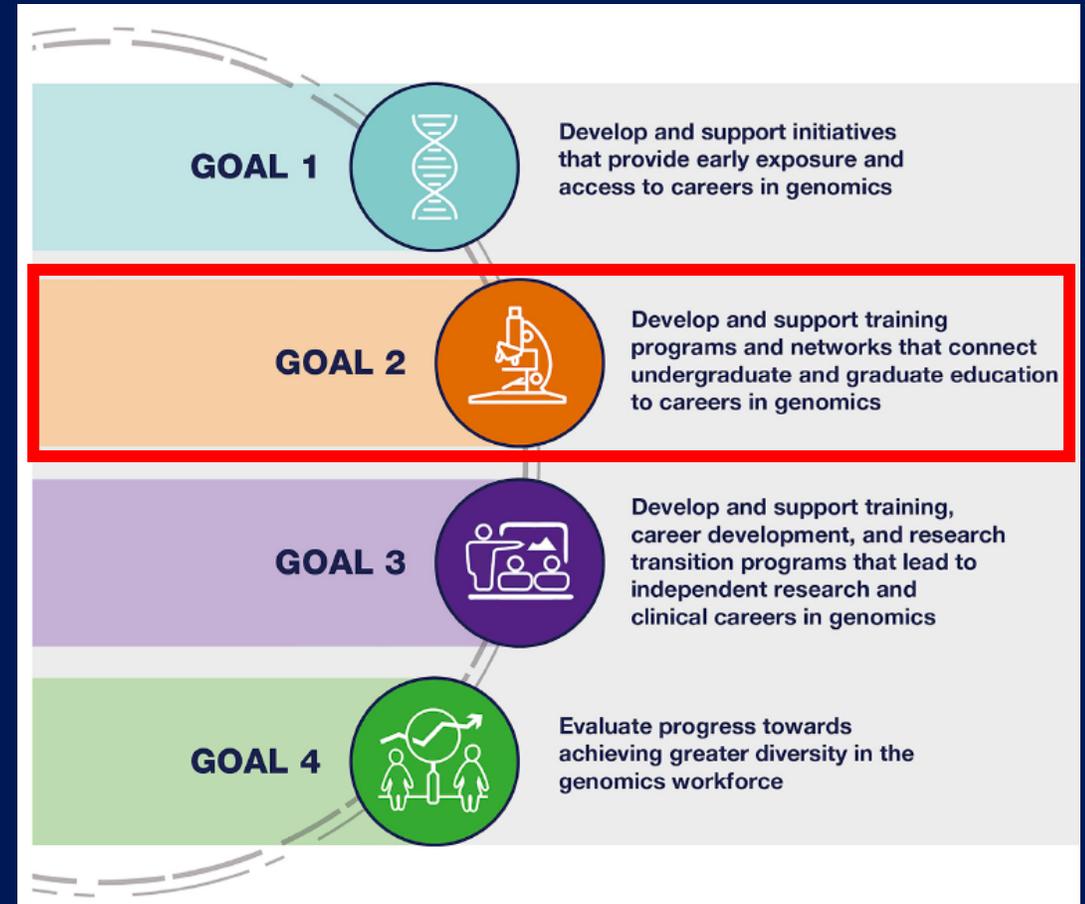- Application Process
- Q&A

Background

Building a Diverse Genomics Workforce: An NHGRI Action Agenda

genome.gov/workforcediversity

Addresses Sub-Goal 2.2:

"*Ensure that undergraduate minority-serving institutions (MSIs) are aware of and tightly connected to this network*"

GOAL 1 — Develop and support initiatives that provide early exposure and access to careers in genomics

GOAL 2 — Develop and support training programs and networks that connect undergraduate and graduate education to careers in genomics

GOAL 3 — Develop and support training, career development, and research transition programs that lead to independent research and clinical careers in genomics

GOAL 4 — Evaluate progress towards achieving greater diversity in the genomics workforce

Funding to Promote Diversity in the Genomics Workforce

- R25 GREAT program*
- F99/K00 predoc to postdoc transition award*
- K18 short-term career enhancement award*
- R25 Research Experience in Genomic Research for Data Scientists*
- R01 for New Investigators*
- R25 Diversity Action Plan (DAP)
- R21 for New Investigators*
- Research supplements to promote diversity*
- F31D Predoctoral fellowship*
- K99/R00 MOSAIC*
- R16 Support for Research Excellence (SuRE)*

*new NHGRI FOAs in 2021
*NIH sign ons

https://www.genome.gov/careers-training/Funding-to-Promote-Diversity-in-the-Genomics-Workforce

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Purpose of GREAT Program

To encourage undergraduates from diverse backgrounds at eligible MSIs and IDeA institutions to pursue further training and careers in the scientific, medical, ethical, social and/or legal areas of genomics research, by providing research educational activities via institutional partnerships.

IDeA (Institutional Development Award) – build research capacity at institutions in states that have had historically low levels of NIH funding

→ *strengthen undergraduate to graduate school pathway*

Programmatic Approach

- Research educational support for undergraduates enrolled at eligible MSIs and IDeA institutions

- *Institutional partnership* to implement collaborative approaches to genomics-related research education

  - Partnership must include:

    - Lead/applicant Institution- an eligible MSI or IDeA institution
    - Partnership Institution(s) - research-intensive institution with suitable research base in genomics for graduate-level training.

"Talent is evenly distributed, opportunity is not"
-National Education Equity Lab

Programmatic Approach

- Two-year R25 research education program
  - Research experiences
    - *Full-time in summer & part-time academic year*
    - *Primarily at research-intensive institution*
  - Courses for Skills Development (courses, seminars, workshops, career development)
    - *Integrated across partnership institutions*

- Research focus: genome sciences, genomic medicine, and/or ethical, legal & social implications (ELSI) of genomics advances. (See NHGRI Strategic Vision)

- Undergraduates who have completed one academic year

- Outstanding mentoring plan (technical and career skills)

Application Process

- Contact NHGRI Program Officer (Tina Gatlin) *before* submitting your application to check for responsiveness

- Follow instructions in SF424 (R&R) Application Guide

- Main body of application – Research Education Program Plan

- Read RFA carefully, know what to include in your application

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Make sure to include:

- Recruitment Plan to Enhance Diversity*

- Plan for Instruction in Responsible Conduct of Research*

- Evaluation Plan

- Institutional Letter of Support

- Advisory Committee

- Faculty tables

Will not be reviewed if missing in application

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NIH Data Tables for Faculty

- ## Table 2: Participating Faculty Members

Name	Degree(s)	Rank	Primary Department or Program	Research Interest	Training Role	Undergraduates In Training	Undergraduates Graduated	Undergraduates Continued in Research or Related Careers
Abrams-Johnson, Jane	Ph.D.	Asst. Prof.	Pharmacology	Regulation of Synthesis of Biogenic Amines	Preceptor	1	4	2
Jones, Lisa S.	Ph.D.	Res. Asst. Prof.	Biochemistry	Protein Structure, Folding, and Immunogenicity	Preceptor; Advisory Comm	3	3	3
Sandoz, Miguel J.	M.D., Ph.D.	Assoc. Prof.	Neuroscience	Developmental Genetics in Drosophila	PD/PI	4	6	5

- ## Table 4: Research support of Faculty Members

Faculty Member	Funding Source	Grant Number	Role on Project	Grant Title	Project Period	Current Year Direct Costs
Jones, Janine L.	NIH	1 R01 GM76259-01	PD/PI	Structure and Function of Acetylcholine Receptors	06/2014--05/2018	$190,000
Jones, Janine L.	NIH	5 K08 AI00091-03	PD/PI	Purification & Identification of Receptors	11/2012-11/2017	$140,000
Ehlers, Roger G.	Univ		Preceptor	University start-up funds	08/2014-07/2017	$350,000
Mack, Thomas R.	NSF	PCM 80-12935	Preceptor	Control of Angiogenesis	03/2011-02/2015	$185,000

https://grants.nih.gov/grants/forms-f/data-tables.htm

Institutional Eligibility (Section III.1)

- ## Lead/applicant institution
  - Awards undergraduate degrees; and
  - MSI with <$7.5M/yr in NIH research project grants (RPGs), or
  - IDeA with <$7.5M/yr in NIH RPGs, and at least 50% undergrad students supported by Pell grants

- ## Research-intensive institution
  - has an existing genomics or genomics-related program and a significant number of potential mentors with NIH R01 or equivalent extramural research support (institutions) or private funds (organizations)

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Budget (Section II)

- Up to $350K direct cost/year; 8% indirect cost
- Project period limited to 5 years
- Partner institutions funded by subaward
- Budget categories:
  - Personnel Costs – *maximum of 40% of total budget*
  - Other Program-Related Expenses - *maximum of 10%*
  - Participant Costs – *minimum of 50%*

Evaluation measures (Section V1.4)

- Aggregate number and demographic characteristics of participants

- New knowledge or skills acquired

- Participants' feedback

- Career progress
  - Completion of undergraduate degree
  - Admission to advanced degree program in genomics-related field
  - Participation in research in genomics-related field
  - Employment in genomics-related field

Reporting Requirements (Section VI.3)

- Trainee appointment forms (PHS 2271)

- Trainee Diversity Report (TDR)

- Table 8: student outcomes

Undergrad Student Participant	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Received and Year(s)	Topic of Research Project	Initial Position	Current Position	Subsequent Grant(s)/ Role/Year Awarded

First deadlines

- Letter of intent: November 1 (not required)

- Application due date: December 1

- Do not wait until last day to submit!

  - Grants.gov submission errors
  - Contact eRA Service Desk (see RFA for contact info)
  - Application submitted to NIH not NHGRI (very little NHGRI staff can do if errors)

Review and Selection Process (Section V.2)

- First level peer review convened by NHGRI

- Second level review by NHGRI's Council

- Funding decisions based on:
  - Scientific and technical merit of proposed project as determined by peer and Council review
  - Availability of funds
  - Relevance of proposed project to program priorities
  - Geographical distribution of program sites

Questions?