Concept Clearance: Genome Research Experiences to Attract Talented Undergraduates into the Genomics Field to Promote Diversity (GREAT Program)

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Championing a Diverse Genomics Workforce

• September 2020 Council
  • F99/K00 predoc to postdoc transition award
  • K18 short-term career enhancement award

• February 2021 Council
  • GREAT program
  • Grants for New Investigators to Promote Diversity

• May 2021 Council and beyond
  • Anticipating future concepts
Outline

- Goal
- Background and rationale
- Concept scope and objectives
- Relationship to on-going activities
- Council discussion
GREAT Program - Goal

• To encourage undergraduate students from underrepresented backgrounds at diversity-serving institutions, to pursue further training and careers in genomics research that are within NHGRI mission areas, by providing them research educational activities via institutional partnerships.
Background

Building a Diverse Genomics Workforce: An NHGRI Action Agenda

- genome.gov/workforcediversity
- Addresses Sub-Goal 2.2:

  “Ensure that undergraduate diversity-serving institutions are aware of and tightly connected to this network”
Underrepresented groups

- Racial/ethnic, disabilities, disadvantaged, women
- Racial/ethnic groups:
  - 34% of US Population
  - 10% in genetics/genomics graduate programs (NSF)
  - 14% of NHGRI T32 graduate student trainees

strengthen undergraduate to graduate school pathway
Scope and Objectives

• Research educational support to undergraduates enrolled at institutions with historical mission to educate underrepresented students (diversity-serving institution)

• *Institutional partnership* to implement collaborative approaches to genomics research education
  • Partnership must include:
    • Applicant Institution is a diversity-serving institution
    • Partnership Institution(s) - research-intensive institution with suitable research base in genomics for graduate-level training.
Why partnership model?

- NIH should support creative partnerships between research-intensive institutions and under-resourced diversity-serving institutions
  - NIH ACD 2012 report on Diversity in the Biomedical Workforce

- “Level the playing field” – NIH Office of Scientific Workforce Diversity

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

- Unequal access to education, resources, experiences

- “Attention in the form of guidance and resources must go to where the students are concentrated, which will lead them to and through graduate genomics training programs.”
  - 2021 NHGRI Diversity Action Agenda
Scope and Objectives

• 2-year genomics research education program
  • Part-time academic year & full-time summer research experiences
    • primarily at research-intensive institution
    • Other educational activities (courses, bootcamps, seminars, lab meetings, career development, etc.)
      • at both institutions

• Undergraduates who have completed 2 academic years

• Outstanding mentoring plan

• Monitoring and evaluation plans for both the students and mentors
  • assessment that program and its environments are effective, inclusive, safe and supportive
Measurable Student Outcomes

• Students matriculating through the program
• Admission to graduate programs
• Engaged in research-related profession
• Presentations, publications and awards

long-term tracking
Relationship to Ongoing Activities

• Modelled after other NIH R25 undergraduate programs to enhance diversity
  • BP-ENDURE
  • BD2K
  • NIEHS UP

• NHGRI Diversity Action Plan (DAP) R25 Program

• NHGRI-T32 collaborations encouraged
Mechanism of Support

• RFA
• Applications limited to $350K direct cost/yr
• R25, 8% indirect cost
• ~3 new awards/yr for 3 years
• Project period limited to 5 years
• Total projected investment for 9 awards is ~$17M
Council Discussion

• Thoughts on partnership model?
• Thoughts on 2-year educational program?
• Thoughts on size and scope of program?
• Other points to consider?