Proposed NHGRI Research Training and Career Development Initiatives

NATIONAL ADVISORY COUNCIL FOR HUMAN GENOME RESEARCH

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Heather Junkins
Tina Gatlin
Bettie Graham
Background

- Workshop held in April 2013 to provide guidance to NHGRI on how to align the research training and career development programs with the Strategic Plan.

- Participants included experts in genomics, academic medicine and training
Overarching Recommendations

- Maintain investment in genomic science training; expand informatics
- Expand training into genomic medicine
- Training investment on par with other NIH ICs
General Recommendations

- **Institutional Training Grants**
  - Expand postdoctoral training to encompass genomic medicine
  - Continue training in genomic sciences

- **Career Awards**
  - Expand K awards to encompass genomic medicine
  - Continue training in genomic sciences
Specific Recommendations from Workshop

• Develop leaders as an over-arching goal.
• Train comprehensively in more than one discipline.
• Ensure trainees have access to large, complex datasets.
• Continue support of the Diversity Action Plan.
• Develop a professional network of trainees and K awardees.
• Fund more training and career development activities.
Proposed Implementation Plan

- Institutional postdoctoral/clinician training program in *genomic medicine* (T32) *new*

- Institutional training program in *genomic sciences* for graduate students and postdoctoral fellows (T32)

- Individual mentored career development award in *genomics* (K01)

- Individual mentored clinical scientist career development award in *genomic medicine* (K08) *new*
Objective: To develop leaders in genomic medicine

- Two training paths (programs may include one or both):
  1. train genomic medicine researchers and
  2. provide comprehensive training in genomics for clinicians

  - Eligible appointees: Postdoctoral fellows with MD or clinical PhD degree.
  - Course requirements flexible, training in quantitative approaches and ELSI required.
  - Individual appointments 2-3 years’ duration.

- Number of training slots per application: 4-6
Institutional Training Program for Postdoctoral Fellows in Genomic Medicine (T32)

What’s New?

- Expansion of the T32 program to support training in genomic medicine.
- Program targeted to MD or clinical PhD postdocs
- Broad training in medicine and genomics
- High potential to serve as a mentor in genomics to other clinicians or genomics consultant on complex cases
Institutional Training Program in Genomic Sciences for Graduate Students and Postdoctoral Fellows (T32)

Objective: To develop leaders in genomic sciences

- Comprehensive knowledge base and skills set in the quantitative and informational sciences
- Cross-training can include clinical discovery work and technology development
- New programs limited to 10 training slots
- Existing programs that are larger will be reduced gradually over time.
- What’s new?
  - Greater emphasis on cross-training in bioinformatics, biostatistics, and quantitative sciences.
NHGRI K awards

- Currently signed on to NIH parent awards:
  - K01
  - K25
  - K99/R00

- Propose:
  - New NHGRI K08
  - New NHGRI K01 to replace parent K01/K25
  - K99/R00 – no change
Objective: To cross-train investigators proficient in a genomic discipline in another scientific discipline relevant to genomic science.

- Eligible applicants: Individuals with PhD degree or equivalent and demonstrated competency in one scientific discipline relevant to genomic sciences.

What’s new?

This will expand opportunities to individuals with a biological degree who wish to cross-train in genomic sciences.
Objective: To provide a mentored research experience to clinically-trained individuals to become independent investigators and practitioners of genomic medicine

- Eligible appointees: Individuals with a MD degree
- Course requirements: Defined curriculum needed to complement their existing clinical expertise and to receive training in ELSI.
- Pursue a research project that would provide preliminary data for an independent research project.

What’s new?
- Expansion of the mentored career award program to support clinicians in genomic medicine
NHGRI’s 5-yr average % investment of extramural budget vs. NIH-wide (FY 2008-2012)

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