NIH Grants & Interactive Health Systems

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Agenda

• NLM research grants in Biomedical Informatics
• NIH grants relating to Electronic Health Records
• NIH Common Fund High Risk High Reward grant programs
• Big Data to Knowledge (BD2K) at NIH
Informatics Grants @ NLM

- NLM gives grants to support research & development in biomedical informatics
  - Improving storage, retrieval, access, management and use of biomedical knowledge
  - Intersection of computer and information sciences with application areas in basic biomedical research, health care, public health
  - Emphasis is new knowledge that advances the fields of computational and information sciences

- 2013 Success rates
  - 12% for research grants; 28% for career awards; 4% for resource grants
FY 2013 - 133 Awards ($41,007,000)

New Grants (n=27)

- Research Project Grants: 13
- Small Business Grants: 6
- Career and Training: 2
- Resource & Conference Grants: 6

Continuing Grants (n=106)

- Research Project Grants: 69
- Small Business Grants: 17
- Career and Training: 19
- Resource & Conference Grants: 1
- Research Centers: 1

Continuing grants represent about 82% of the total grant budget
Example Titles, FY 2013 New R01 Awards

• Health Care Informatics:
  – Discovering and Applying Knowledge in Clinical Databases

• Consumer Health Informatics:
  – Living Smartly with Diabetes: Using PWP and Mobile PWP for Self-Management

• Public Health Informatics:
  – Minimizing Access Disparities in Bio Emergency Response Planning
Active NLM Research Grants
Electronic Health Records at NIH

• Individual Institutes and Centers support projects relevant to their missions
• 20 organizations at NIH fund 56 active projects for $250,228,137
• @ 60% of projects and 90% of the funds come from: NHLBI, NCI, NLM, NIDDK, NCATS
• http://projectreporter.nih.gov/reporter.cfm
NIH Investments in EHR
Funding Announcements via NIH Guide

- Parent Announcements for R01, R21, etc.
- Institute-sponsored initiatives
  - Innovative Research Methods: Prevention and Management of Symptoms in Chronic Illness (R01, R21)
  - The Electronic Medical Records and Genomics (eMERGE) Network (U01)
  - Understanding and Promoting Health Literacy (R01)
• High Risk High Reward Research Program

• Support research that is bold, paradigm-shifting, including untested ideas

• No direct mention of informatics or health care systems in the Funding Announcements

  – NIH Director’s New Innovator Award
  – NIH Director’s Pioneer Award
  – NIH Director’s Transformative Research Award

• https://commonfund.nih.gov/
Director’s New Innovator Award

• Many new investigators have exceptionally innovative research ideas, but not the preliminary data required to fare well in the traditional NIH peer review system

• 5 years, up-front funding  $300K directs/yr + F&A

• Recent examples: https://commonfund.nih.gov/newinnovator/AwardRecipients.aspx
Director’s Pioneer Awards

• For scientists of exceptional creativity, who propose pioneering – and possibly transforming approaches – to major challenges in biomedical and behavioral research
• Must reflect *substantially different scientific directions from those already being pursued*
• 5 years, $500K direct costs + F&A

• Recent examples:
  [https://commonfund.nih.gov/pioneer/AwardRecipients.aspx](https://commonfund.nih.gov/pioneer/AwardRecipients.aspx)
Transformative Research Award

• The NIH encourages Transformative Research Award applications from investigators in all disciplines relevant to the NIH mission, including the biological, behavioral, clinical, social, physical, chemical, computational, engineering, and mathematical sciences.

• No budget ceiling, up to the entire funds set aside for the initiative.

• 5 years, $15 million for the program in 2014.

Recent examples at:
New Directions

• BD2K Mission: to enable biomedical scientists to capitalize more fully on the large, complex, diverse datasets they are generating
  • Diversity (e.g., omics, imaging, phenotypic, behavioral)
  • Small and large groups and individual investigators
• Improve ability to locate, analyze and use big data
• Provide relevant software and tools, expertise
• Areas of BD2K
  – Facilitating Broad Use of Data
    • Data sharing policies, catalog of research datasets, community based data and metadata standards
  – Analysis Methods and Software
    • Development and hardening of software, access to large-scale computing, dynamic community of users
  – Enhancing Training
    • Increase number of computationally and quantitatively skilled biomedical trainees, strengthen skills of all biomedical researchers
  – Centers of Excellence
    • Research and training
      • http://bd2k.nih.gov/#sthash.ccgST1Bw.dpbs
What is the NIH Timeline for BD2K?

• Funding announcements to be issued in FY 2014
  – Training grants & individual fellowships
  – Research grants in conjunction with existing BISTI program and also focused offerings
  – Centers of Excellence in Big Data (already issued)

• Funding ramp to $100 million per year
In Closing

• NIH is already funding research on interactive systems through individual and group initiatives of its Institutes and Centers,

• The NIH Common Fund High Risk High Reward grants could support research in this area

• The BD2K initiative brings a new stream of funding for research relating to big data that could support this research
Resources for More Information

• Report.nih.gov – NIH RePorter lists grants by all NIH organizations, including abstracts, lists of publications, PI contact information

• www.nlm.nih.gov/ep - NLM Extramural Programs web site, listing all active NLM grant opportunities, with program officer contact information