Big Data

NIH Funding Opportunities

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IEEE Big Data Conference
**BD2K Program**

*Big Data to Knowledge (BD2K)*

**Goal**: Develop innovative, transforming approaches and tools for making Big Data and data science a more prominent component of biomedical research.  
(https://bd2k.nih.gov/index.html#sthash.X61sHE4W.dpbs)

**Areas** (https://bd2k.nih.gov/about_bd2k.html#areas)
- Enabling Data Utilization
- Analysis Methods and Software
- Enhancing Training
- Centers of Excellence

**Workshops**

(https://bd2k.nih.gov/workshops.html#sthash.cqQOR5DP.dpbs)
These NIH multi-institute awards constitute an initial investment of nearly $32 million in fiscal year 2014 by NIH’s Big Data to Knowledge (BD2K) initiative, which is projected to have a total investment of nearly $656 million through 2020, pending available funds.

• The White House blog about BD2K:
BD2K Funded Phase I

Four Main Areas of BD2K (Phase I)

• Centers of Excellence for Big Data Computing
  11 centers; Kick-Off Meeting Nov 2-4, Bethesda

• BD2K-LINCS Perturbation Data Coordination and Integration Center
  One center

• BD2K Data Discovery Index Coordination Consortium

• Training and Workforce Development
BD2K Funding Opportunities

• Center for Excellence for Big Data Computing for the Biomedical Sciences RFA-HG-13-009

• Development of an NIH BD2K Data Discovery Index Coordination Consortium RFA-HL-14-031

• Predoctoral Training in Biomedical Sciences (T32) RFA-HG-14-004 06/28/2014 - 07/28/2015

• Revisions to Add Biomedical Big Data Training to Active Institutional Training Grants (T32) RFA-HG-14-005 06/28/2014 - 07/28/2016
• Mentored Career Development Award in Biomedical Big Data Science for Clinicians and Doctorally Prepared Scientists (K01) RFA-HG-14-007
  03/01/2014 - 04/02/2015

• Courses for Skills Development in Biomedical Big Data Science (R25) RFA-HG-14-008
  03/01/2014 - 04/02/2016

• Open Educational Resources for Biomedical Big Data (R25) RFA-HG-14-009
  03/1/2014 - 04/2/2016
BISTI Funding Opportunities

• Early Stage Development of Technologies in Biomedical Computing, Informatics, and Big Data Science (R01) (PA-14-155)

• Early Stage Development of Technologies in Biomedical Computing, Informatics, and Big Data Science (R43/R44) (PA-14-154)

• Early Stage Development of Technologies in Biomedical Computing, Informatics, and Big Data Science (R41/R42) (PA-14-157)

• Extended Development, Hardening and Dissemination of Technologies in Biomedical Computing, Informatics and Big Data Science (R01) (PA-14-156)

http://www.bisti.nih.gov/funding/
Seven High Priority Research Areas

1. Discovering diversity
2. Maps at multiple scales
3. The brain in action
4. Demonstrating causality
5. Identifying fundamental principles
6. Advancing human neuroscience
7. From BRAIN Initiative to the brain

FIRST FIVE YEARS
Emphasize technology development

SECOND FIVE YEARS
Emphasize discovery driven science
How to Accomplish These Goals: *Principles*

1. Pursue human and non-human animal studies in parallel
2. Cross boundaries in interdisciplinary collaborations
3. Integrate spatial and temporal scales
4. Establish platforms for sharing data and tools
5. Validate and disseminate technology
6. Consider ethical implications of neuroscience research
7. Accountability to NIH, taxpayers, and the scientific community