American Recovery and Reinvestment Act: MRI and ARI

NSB
Committee on Programs and Plans
May 13, 2009

W. Lance Haworth
Director, Office of Integrative Activities
American Recovery and Reinvestment Act (ARRA)

National Science Foundation
Research and Related Activities

For an additional amount for “Research and Related Activities”, $2,500,000,000: Provided, That $300,000,000 shall be available solely for the Major Research Instrumentation program, and $200,000,000 shall be available for activities authorized by title II of Public Law 100-570 for academic research facilities modernization.
Major Research Instrumentation (MRI)

Overview

- Congressionally mandated program since 1990s
- Annual competition with January proposal deadline
- Supports acquisition and development of major research instruments
- Coordinated by OIA in partnership with NSF Directorates and Offices (Working Group)
  - Awards made by the appropriate Division
- Proposal limit "2 + 1" per institution
- Award size from $100,000 to $4 million**
- Standard grants – up to 3Y acquisition, 5Y development
- 30% cost sharing (per ACA), but non-PhD-granting academic institutions are exempt
Snapshot of FY08 Awards

- **Program budget** $94M
  - 810 proposals reviewed, 225 awards to 184 institutions
  - 17 awards ≥ $1 million; 4 awards ≥ $2 million
  - Co-funding added $7M

- **Award Distribution**
  - BIO 45, CISE 24, ENG 44, GEO 25, MPS 74, SBE 6, OCI 4, OPP 3
  - 186 Acquisition, 39 Development
  - Mean Award size $451,000

- **Instruments**
  - 8 or more awards: Scanning Electron Microscopes; Confocal Microscopes; NMRs; Mass Spectrometers; Computer Clusters
  - Other examples: Astronomical Spectrograph; Meteorological Radar Network; Ocean Acoustic Waveguide Remote Sensing; Genome Sequencer; etc.
  - ≥ $2 million: Supercomputer; Computer Cluster; Transmission Electron Microscope; 5 MeV Accelerator
Two MRI Competitions in FY 2009

*Current Solicitation NSF 09-502*

- 824 proposals received January 2009
- Funding:
  - $100M from FY 2009 funds
  - $100M from ARRA funds
  - Up to ~400 awards total
  - Award limit $4M
  - No mixing of funds
- Awards in FY 2009
Two MRI Competitions in FY 2009

New Solicitation MRI - $R^2$

- MRI - $R^2$ - Recovery and Re-investment
- Funding: $200M, all from ARRA funds
- Award limit raised to $6M
  - *per America Competes Act*
- Cost-sharing exemption extended
  - *per ACA, to non-top-100 federally funded institutions*
- Up to ~400 new awards
- Awards in CY 2009
Impact of ARRA (MRI and MRI-R²)

- Adds new opportunities for acquisition and development of mid-scale instruments up to $6 million
- Up to ~600 additional awards this year will catalyze advances across the spectrum of fundamental research and education in the U.S.
- Significantly higher success rates
- ARRA funds reach community in 2009
- Re-investment in research capability
Academic Research Infrastructure - Recovery and Reinvestment (ARI-R²)

- Update of 1990s ARI program
  - NSF-SRS report indicates $3.6B in deferred projects
- One-time opportunity
- Repair or renovation of existing research facilities
  - New construction not supported
  - Shared research space
  - Shared research training space
  - Bricks-and-mortar, mobile, or virtual
  - All NSF-supported research areas
Academic Research Infrastructure - Recovery and Reinvestment (ARI-R²)

- Program coordinated by OIA in partnership with NSF Directorates and Offices
  - NSF-wide Working Group established
- Funding: $200M, all from ARRA funds
- Three Award Categories
  - $250K to $2M (~100 awards)
  - $2M to $5M (~6-10 awards)
  - $5M to 10M (~3-5 awards)
- Standard grants and cooperative agreements
- No cost sharing
Academic Research Infrastructure - Recovery and Reinvestment (ARI-R²)

- Limit 1 proposal per eligible organization
  - Anticipate ~500-800 proposals (??)
  - Reviewer spectrum: research, facilities, project management
  - ~110 awards
- Smaller awards by January 2010
- Larger awards by April 2010
  - Reverse site visits / site visits, as needed
- NSB information item May 2010
- Award duration
  - Up to 3Y for smaller grants
  - Up to 4Y for larger awards
MRI Team
- OIA
  - Randy Phelps, Staff Associate
  - (New position) Staff Associate, TBD
  - Staff support (Lori Williams, Nick Proferes, Victoria Fung)
- NSF-wide MRI working group; Directorates and Offices

ARI Team
- OIA
  - Steve Meacham, Senior Staff Associate (on detail from OCI)
  - Sherrie Green, Program Director (part time)
  - Staff support (Lori Williams, Denita Norris, Victoria Fung)
- NSF-wide ARI working group; Directorates and Offices

Both programs will require extensive post-award reporting and monitoring
# Timelines

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<th>MRI</th>
<th>MRI - $R^2$</th>
<th>ARI - $R^2$</th>
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<tbody>
<tr>
<td>Outreach to Community</td>
<td>Ongoing</td>
<td>May-August (and as needed)</td>
<td>May-August (and as needed)</td>
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<td>Letters of Intent</td>
<td>N/A</td>
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<td>1 July 2009</td>
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<td>Panel Reviews</td>
<td>April-June</td>
<td>Late September-October</td>
<td>October - December</td>
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<td>Competition Site Visits, as needed</td>
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<td>December 2009</td>
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<td>Awards Issued</td>
<td>July 2009</td>
<td>End of CY 2009</td>
<td>January – April 2010</td>
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