

# American Recovery and Reinvestment Act: MRI and ARI

NSB  
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The poster features the NSF logo at the top left, followed by the text "NATIONAL SCIENCE FOUNDATION MAJOR RESEARCH INSTRUMENTATION". Below this is a section titled "MRI GOALS" with a bulleted list of six points. To the right of the text is a vertical column of small images showing various research activities. At the bottom left, there is a grid of images showing different scientific instruments and facilities. The background is a dark blue and green abstract design with glowing lines and circles.

**NSF** NATIONAL SCIENCE FOUNDATION  
**MAJOR RESEARCH INSTRUMENTATION**

**MRI GOALS**

- Catalyzing new knowledge and discoveries
- Empowering the Nation's scientists and engineers
- Providing state-of-the-art research instrumentation
- Enabling research-intensive learning environments
- Building capacity for a diverse workforce
- Developing next generation instrumentation
- Promoting academic/private sector partnerships

MRI@NSF.GOV  
www.nsf.gov/od/oia/programs/mri



# 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*

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- 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

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## ■ Program budget \$94M

- 810 proposals reviewed, 225 awards to 184 institutions
- 17 awards  $\geq$  \$1 million; 4 awards  $\geq$  \$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.
- $\geq$  \$2 million: Supercomputer; Computer Cluster; Transmission Electron Microscope; 5 MeV Accelerator



## Two MRI Competitions in FY 2009

### *Current Solicitation NSF 09-502*

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- 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<sup>2</sup>*

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- MRI-R<sup>2</sup> - 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-R<sup>2</sup>)

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- 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-R<sup>2</sup>)

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- 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-R<sup>2</sup>)

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- 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-R<sup>2</sup>)

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- 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



# NSF Staffing and Program Management

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- **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

	MRI	MRI-R <sup>2</sup>	ARI-R <sup>2</sup>
Solicitation Posted	10/24/2008	11 May 2009	11 May 2009
Outreach to Community	Ongoing	May-August (and as needed)	May-August (and as needed)
Letters of Intent	N/A	N/A	1 July 2009
Submission Deadline	1/22/2009	10 August 2009	24 August 2009
Panel Reviews	April-June	Late September- October	October - December
Competition Site Visits, as needed	N/A	N/A	December 2009
Awards Issued	July 2009	End of CY 2009	January – April 2010