

Core Facilities – Accomplishments and Plans

June 23, 2011



Outline

- Introductions
- Audience Participation
- Recent History of Core Activities
- Next Steps

What is/was NCRR?

NCRR is one of the 27 Institutes and Centers (ICs) that make up the NIH. NCRR funds many core facilities and provides instruments for core facilities. However, at least 19 other ICs also fund core facilities.



NIH Investment in Cores

The overall NIH investment in core facilities is hard to quantify exactly. However, a reasonable estimate is \$900M each year.

This total includes:

- P30 awards (\$637M in FY10)
- Cores supported under other activity codes (P01, U54, ...)
- Charges to the R01 (or other) awards of users of core facilities
- Shared instrument awards that end up in core facilities

Recent Core Activities from NCRR/NIH

1. Released a Request For Information (RFI-RR-09-003) in February 2009.
2. Hosted a meeting in Bethesda based on the responses to the RFI in July 2009.



Request for Information/Meeting - Highlights

- Desire for a centralized directory for information about cores: location, contact info, the cost per experiment, the certification/quality of the core, user experiences with the core.
- Strong desire for training resources for core facility directors – especially concerning business practices.
- Core management – the benefit of centralized vs decentralized institutional management, the advantages of small cores vs large operations
- Core operations – finding resources for centralized operations at the institution level and for personnel who work in core facilities

Request for Information/Meeting - Highlights

- NIH issues
 - 1) Similar cores established by different ICs
 - 2) Cost recovery issues – OMB Circular A21
 - 3) Relationship between the Shared Instrument Grant program and core facilities and other issues with the Shared Instrument Grant program.

Recovery Act



NCRR and the Recovery Act

- NIH received \$10.4B in Recovery Act funds
- NCRR received three distinct pools of funds under the Recovery Act:
 - \$300 M shared instrumentation
 - \$310 M scientific research
 - \$1B extramural construction
- Funds from each NCRR pool were used to support core facilities

The NCRR Shared Instrumentation (SIG) and High-End Instrumentation (HEI) Programs

- Provide funding in cost-range from \$100K to \$2.0M
- Equipment which is too costly to obtain with regular NIH research grants
- Shared by an average of 8-10 grantees
- One year awards; direct costs only; no cost sharing
- Not for instrument development
- Open to many different applicants, but instruments located in core facilities tend to do well in the competition

Shared Instrumentation Program (SIG) Facts

2005-2009 average

Receipt date	Annually (Mar)
# of Applications	350
\$ range	100-500K
Total \$ requested	142.8M
# of Awards	150
Average \$ per award	365K
Budget	43M
Success rate	30%

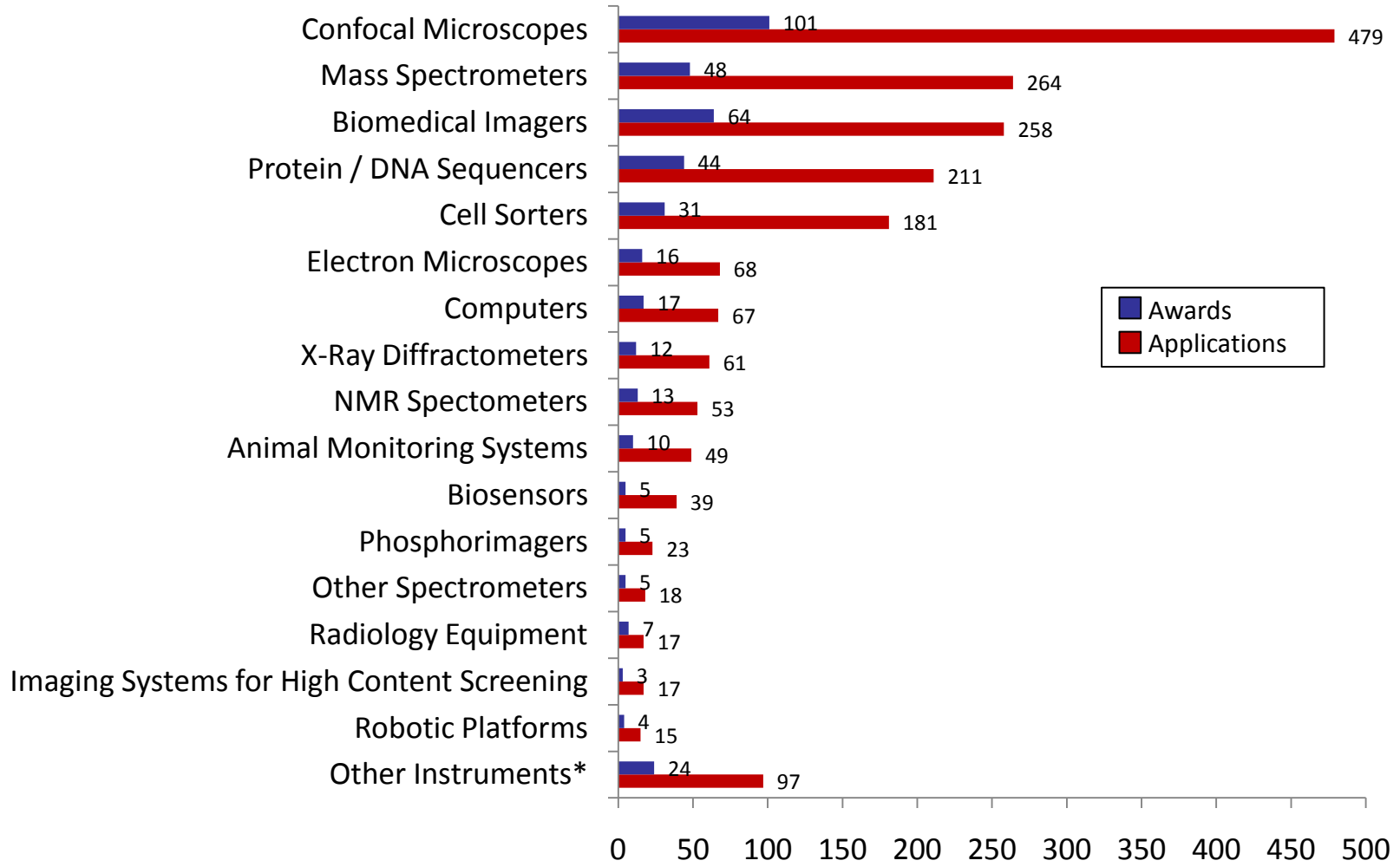
ARRA (FY10 non-ARRA)

Receipt date	Mar 2009
# of Applications	1,898 ‡
\$ range	100-500K
Total \$ requested	731M
# of Awards	378 † (+114)
Average \$ per award	375K
Budget	142M (+42M)
Success rate	26%

† Includes 84 ARRA FY09 (68 SIG)

‡ Reviewed by more than 50 different CSR study sections

Shared Instrumentation Program: Applications and Awards by Instrument FY2010



* Includes Clinical Chemistry Analyzers, EPRs, Fermentors, HPLCs, Nanotechnology Equipment, and Preparative Workstations

High-End Instrumentation Program (HEI) Facts

2005-2009 average

Receipt date	Biannually (Sept)
# of Applications	100
\$ range	750K-2M
Total \$ requested	152.3M
# of Awards	14-15*
Average \$ per award	1.62M
Budget	20M
Success rate	15%

* Annually

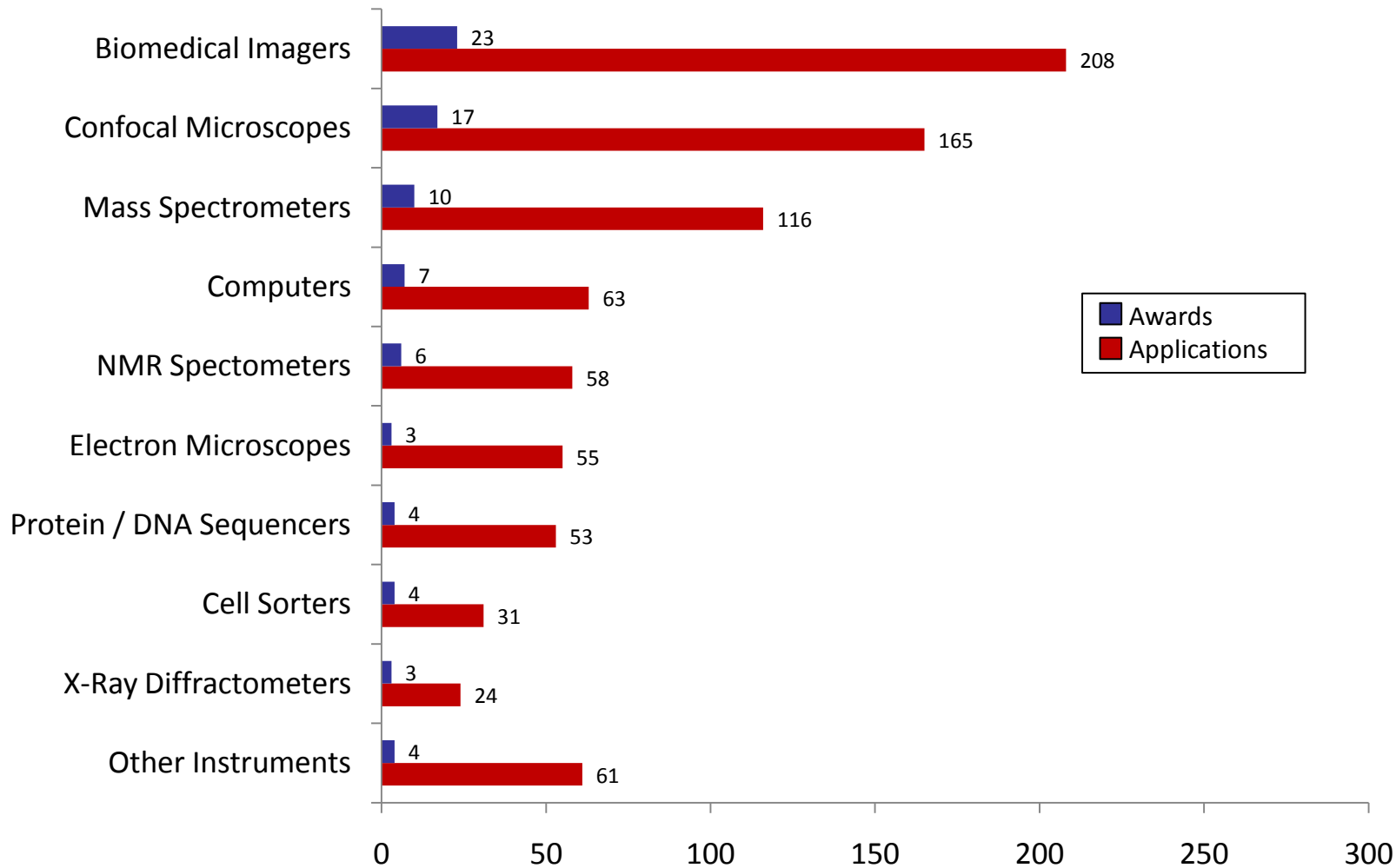
ARRA (FY10 non-ARRA)

Receipt date	May 2009
# of Applications	834 †
\$ range	600K-8M
Total \$ requested	1.76B
# of Awards	80 † (+13)
Average \$ per award	1.98M
Budget	158M (+22M)
Success rate	11%

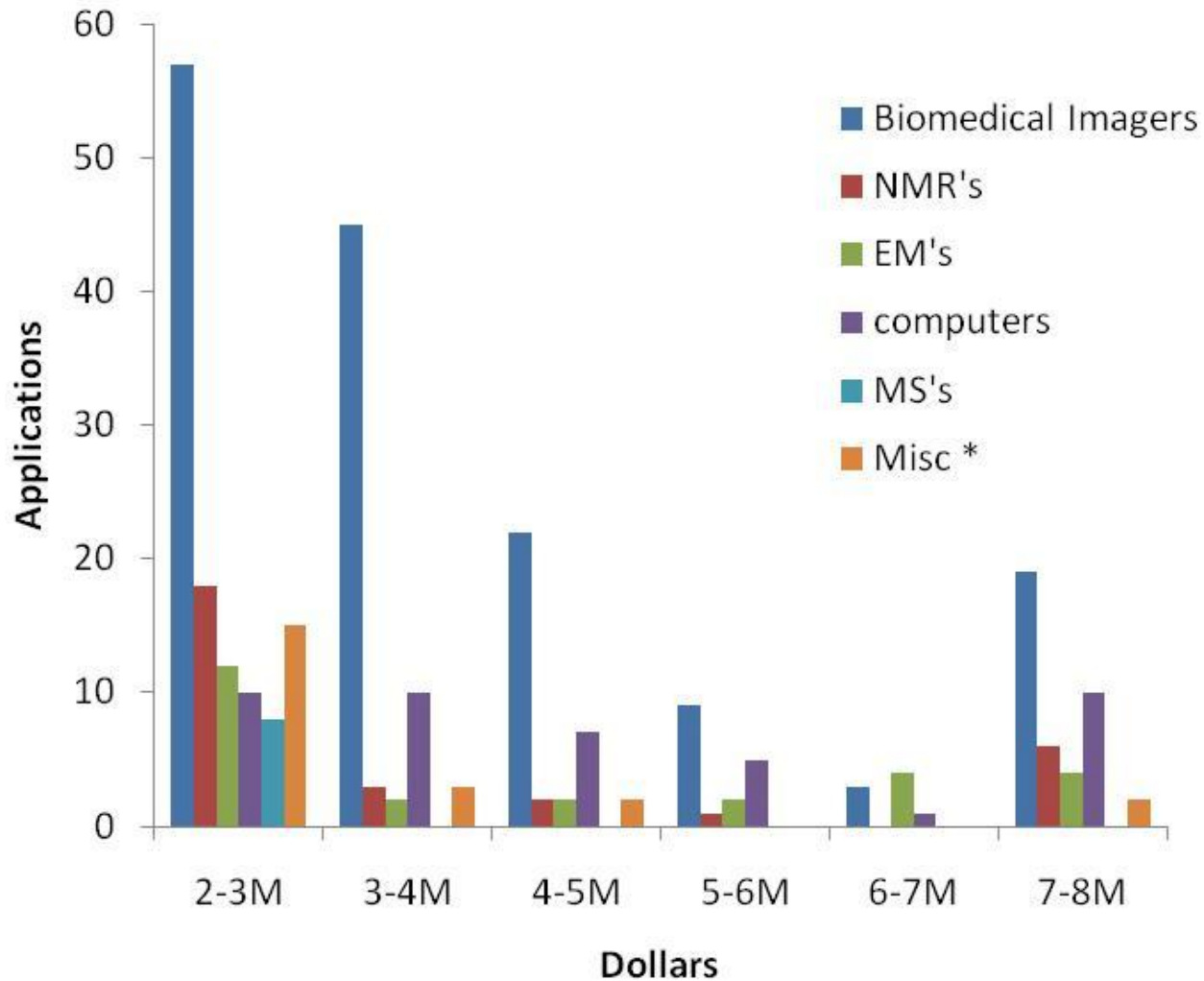
† Includes 84 ARRA FY09 (16 HEI)

‡ Reviewed by more than 50 different
CSR study sections

High-End Instrumentation Program: Applications and Awards by Instrument FY2010



High-End Instrumentation Program : Requests Over \$2M



* Includes High-content Screening Systems, Biobanks, Robotic Platforms and X-Ray Detectors.

NCRR and the Recovery Act

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 - \$300 M shared instrumentation
 - **\$310 M scientific research**
 - \$1B extramural construction
- Funds from each pool were used to support core facilities

Administrative Supplements for Core Consolidation

- NOT-RR-10-001
- The goal of the program was “to allow institutions that have multiple cores to consolidate those facilities into a single, more efficient, core.”
- Administrative supplements, reviewed by program staff, were used
- 12 ICs participated
- 22 supplements were recommended for funding (\$18M total costs)
- Most applications requested funds to consolidate NIH cores with those started by the institution.

Core Consolidation Awards

- U of Ala Birmingham
- Children's Hosp Cincinnati
- MD Anderson Cancer
- Vanderbilt
- Univ of North Carolina
- Albert Einstein
- Univ of Utah
- Wayne State
- Dartmouth
- Univ of Texas HSC, San Antonio
- Oregon Health Sciences University
- Univ of Chicago
- Yale
- Univ of Michigan
- Univ of Rochester
- Univ of Maryland
- Univ of Montana
- UCLA
- NYU School of Med
- UC Davis
- Xavier
- Oklahoma Medical Res Foundation

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Recovery Act Extramural Construction

- NCRR released two RFAs
- One RFA was aimed at renovations for core facilities (G20 activity code)
- Overall, 1200 applications were received and those applications requested nearly \$10.6B in funds
- 31 G20 awards were made to support core facilities
- Those awards totaled roughly \$180M.
- A total of 147 awards were made under both RFAs

Southeast Region Construction Awards

- 1) Alabama – UAB, U of South Alabama
- 2) Arkansas – U of Arkansas, Medical School
- 3) Florida – U of Florida, U of Miami
- 4) Georgia – Emory, **Morehouse**
- 5) Kentucky – **U of Kentucky**, U of Louisville
- 6) Louisiana – Tulane
- 7) Mississippi – University of Mississippi
- 8) North Carolina – Duke, NC State
- 9) South Carolina – Medical U of South Carolina
- 10) Tennessee – E. Tenn. State, **Meharry, Vanderbilt**
- 11) Virginia – Hapmton, **U Virginia**, Virginia Commonwealth
- 12) West Virginia – West Virginia University

Cores Related Construction Projects - Southeast

- 1) Morehouse – G20RR31196 – centralized core facility
- 2) Kentucky – G20RR31064 – cores associated with an animal facility
- 3) Meharry – G20RR30872 – animal core facility
- 4) Vanderbilt – G20RR30956 – genomics cores
- 5) Virginia – G20RR31199 – electron microscopy core facility



Costing Issues for Core Facilities

- NOT-OD-10-138 was released on September 23, 2010
- This Notice contains a draft set of FAQs concerning how to deal with OMB Circular A21 and related issues. The Notice asked for comments.
- Response from the community was very significant.
- We are now working our way through 80+ pages of comments/questions. We hope to release a final set of FAQs in Fall 2011.

Second NIH Cores Meeting

- In order to get additional information about some of the issues raised at the July 2009 meeting, a second meeting was held in November 2010.
- That meeting was also well attended, and a great deal of helpful information was exchanged among participants and between participants and NIH.
- Few new issues were raised which gives us some hope that when all of the current issues have been addressed that the current needs of the cores community will have been addressed.

Summary of Actions - 1

- Desire for a centralized directory for information about cores – Have made introductions among all interested parties (ABRF, Vermont Genetics Network, eagle-I). Will monitor to see if additional incentives/actions are required.
- Strong desire to provide a way to train core directors in business aspects of running a core facility – NARRC has approved a concept clearance.

Summary of Actions - 2

- Centralized versus decentralized core management – We have concluded from the second meeting that there is no single way that is clearly optimal for institutional core management. Different institutions will choose to centralize some aspects of core management (ordering, billing...) or not. We have concluded that a wide range of software is available to help institutions manage centralized core facilities.

Summary of Actions - 3

- Core consolidation – We will monitor with interest the results from the core consolidation supplements and from the G20 core renovation awards to see whether/when consolidate cores serve users better than multiple similar cores. Questions to be addressed include whether different types of instruments are more suited to core consolidation and whether consolidated cores are really able to serve diverse communities of users effectively.

Summary of Actions - 4

- Core operations – finding resources for centralized operations at the institution level and for personnel who work in core facilities
 - This continues to be an unresolved issue. It would be expensive to address this issue.
- NIH issues
 - 1) Similar cores established by different ICs - If the core consolidation supplements are successful, this might be a model for NIH in the future.

Summary of Actions - 5

- NIH issues
 - 2) Cost recovery issues – OMB Circular A21 – Many comments were received in response to the draft FAQs. Those comments are being evaluated, and a final document will be released.
 - 3) Relationship between the Shared Instrument Grant program and core facilities – While there may be some benefit in requiring SIG instruments to reside in cores, such a requirement really would eliminate flexibility in the program.

Summary of Actions - 6

- NIH issues
 - 4) Progress Reports – The ICs that support core facilities often require similar information to be reported in the annual progress report in different ways. For centralized cores, this is at best inconvenient. – **We are working to see if it is possible to harmonize the format for progress reports for core facilities.**