

# **NIBIB Status Report**

**August 15, 2005**

**National Institutes of Health  
National Institute of Biomedical  
Imaging and Bioengineering**



**William J Heetderks, MD, PhD  
Associate Director for Science  
Programs, NIBIB**



# The NIBIB Staff



# The NIBIB Mission

Improving human health by leading the **development and** accelerating the **application of biomedical technologies.**

The Institute is committed to **integrating the physical and engineering sciences with the life sciences** to advance basic research and medical care.



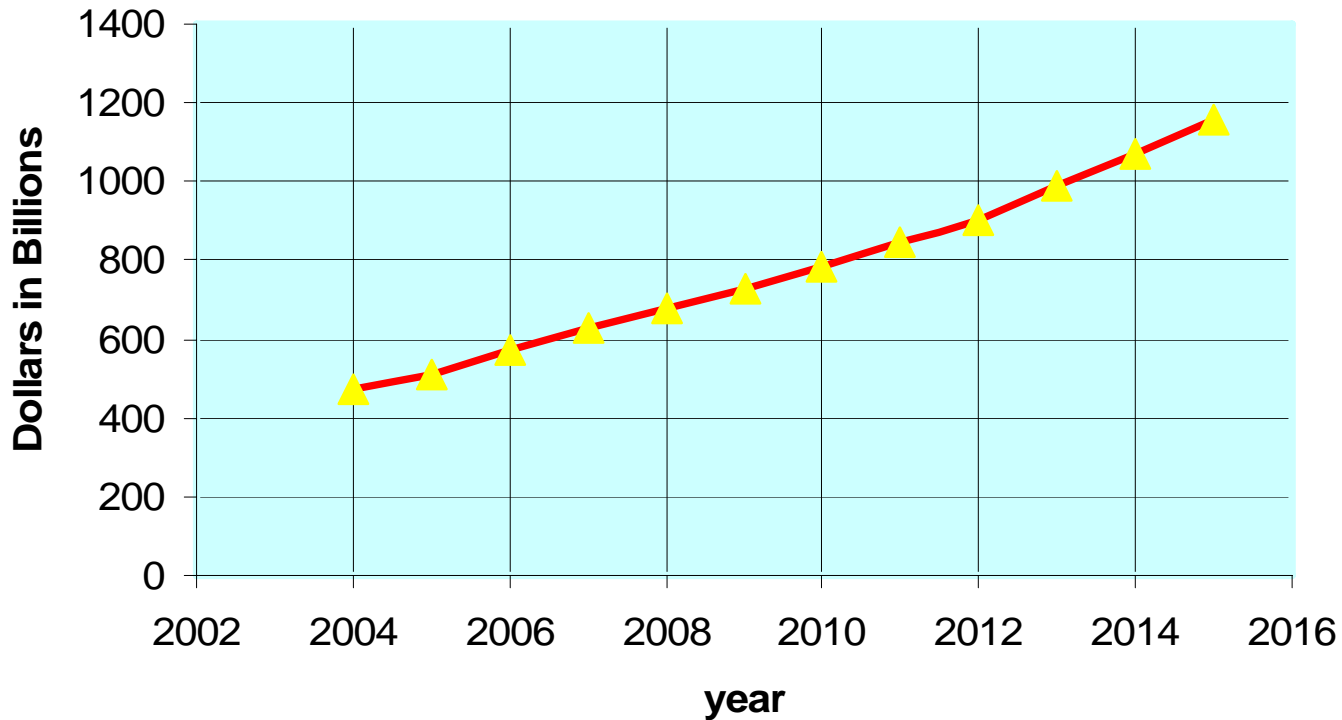
# The NIBIB Vision

**We will profoundly change health care. NIBIB will push the frontiers of technology to make the possible a reality.**

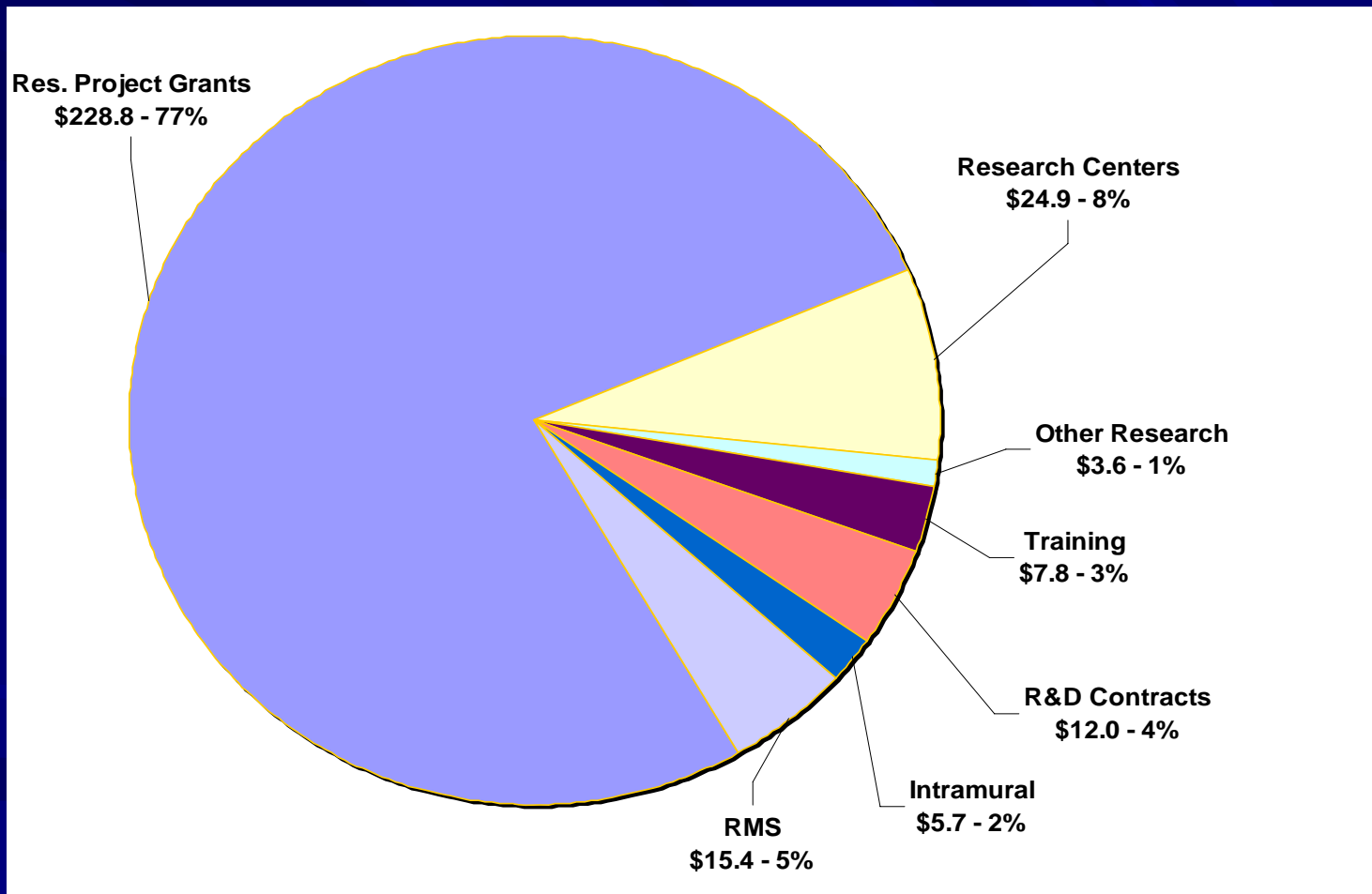


# Change

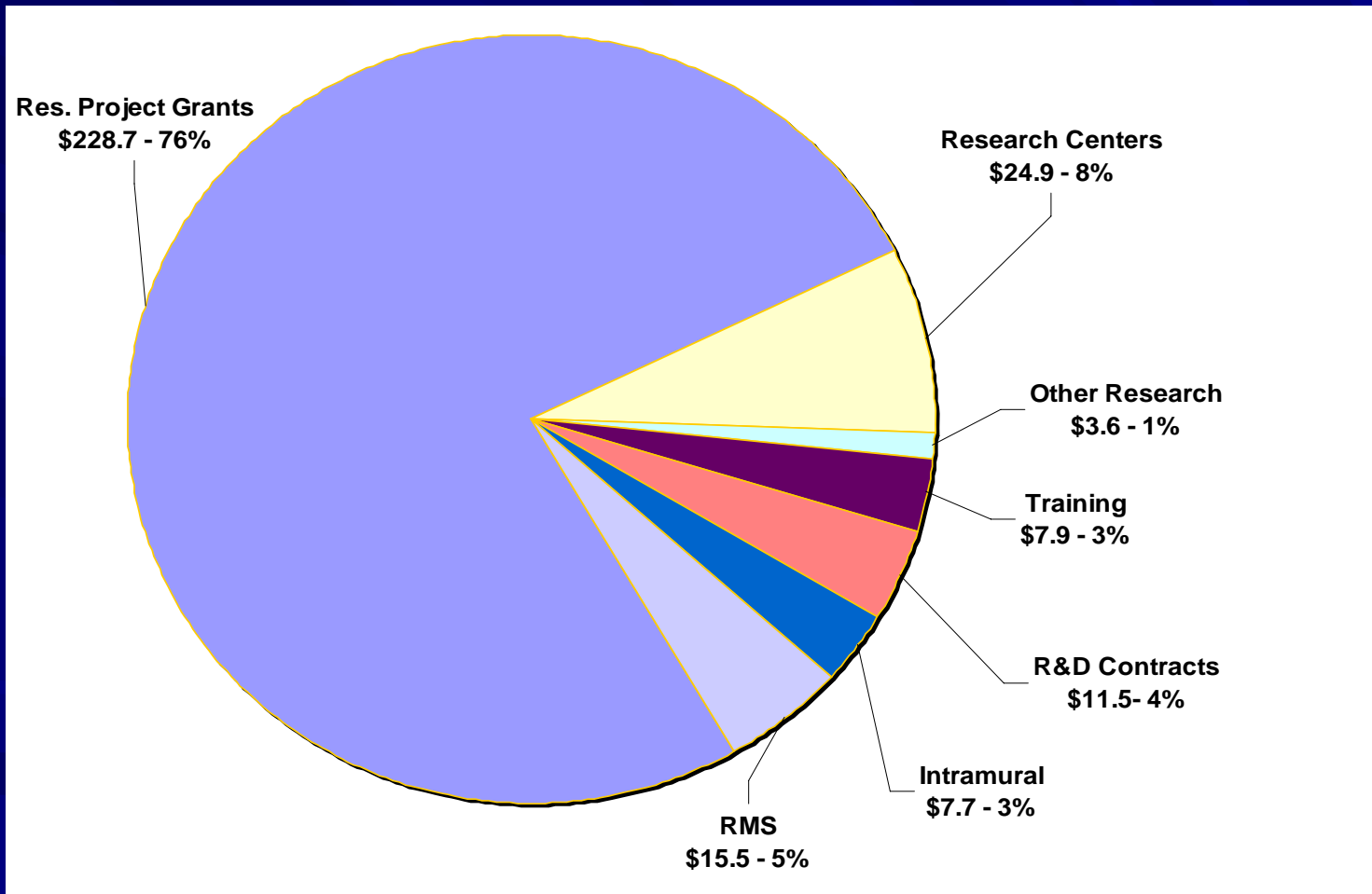
**Estimates of growth in Medicare and Medicaid  
(from CBO)**



# NIBIB FY 2005 Budget (Dollars in Millions)



# FY 2006 – President's Budget Request for NIBIB (Dollars in Millions)



# Areas of Scientific Emphasis Interdisciplinary Research

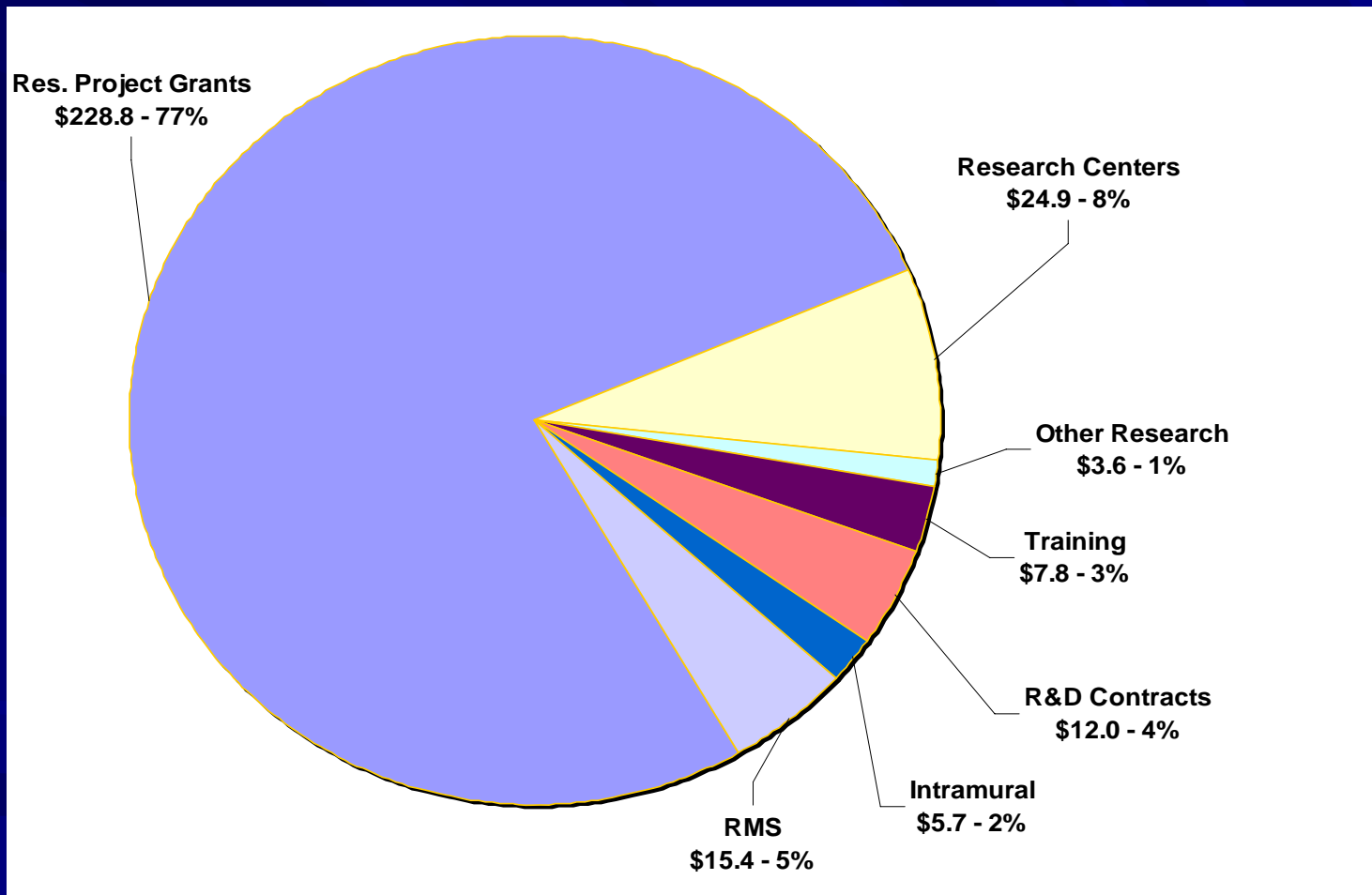
## Goal 1

- Investigator-initiated extramural research focused on discovery, development, and application of science and technology to improve health.



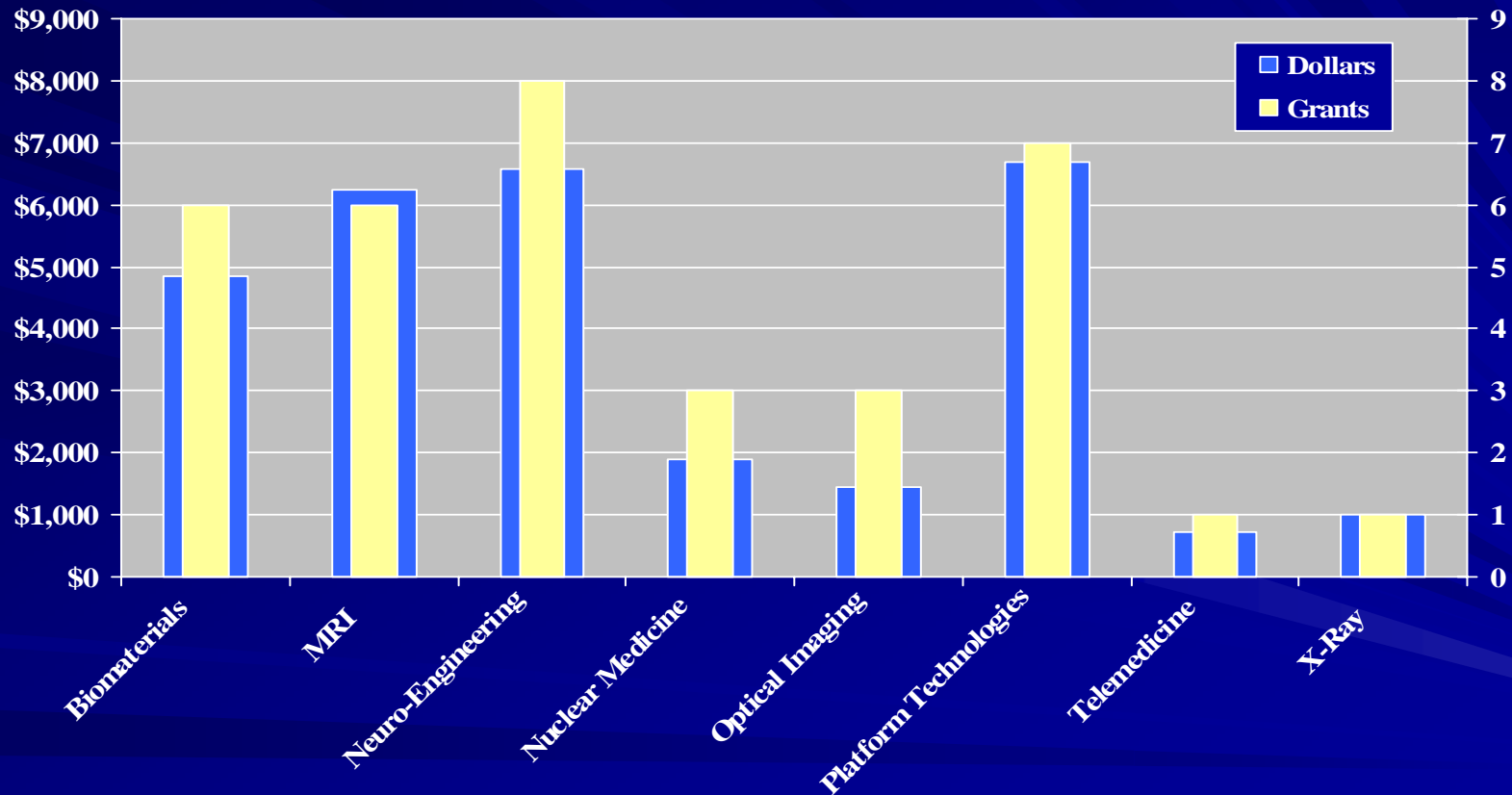


# NIBIB FY 2005 Budget (Dollars in Millions)

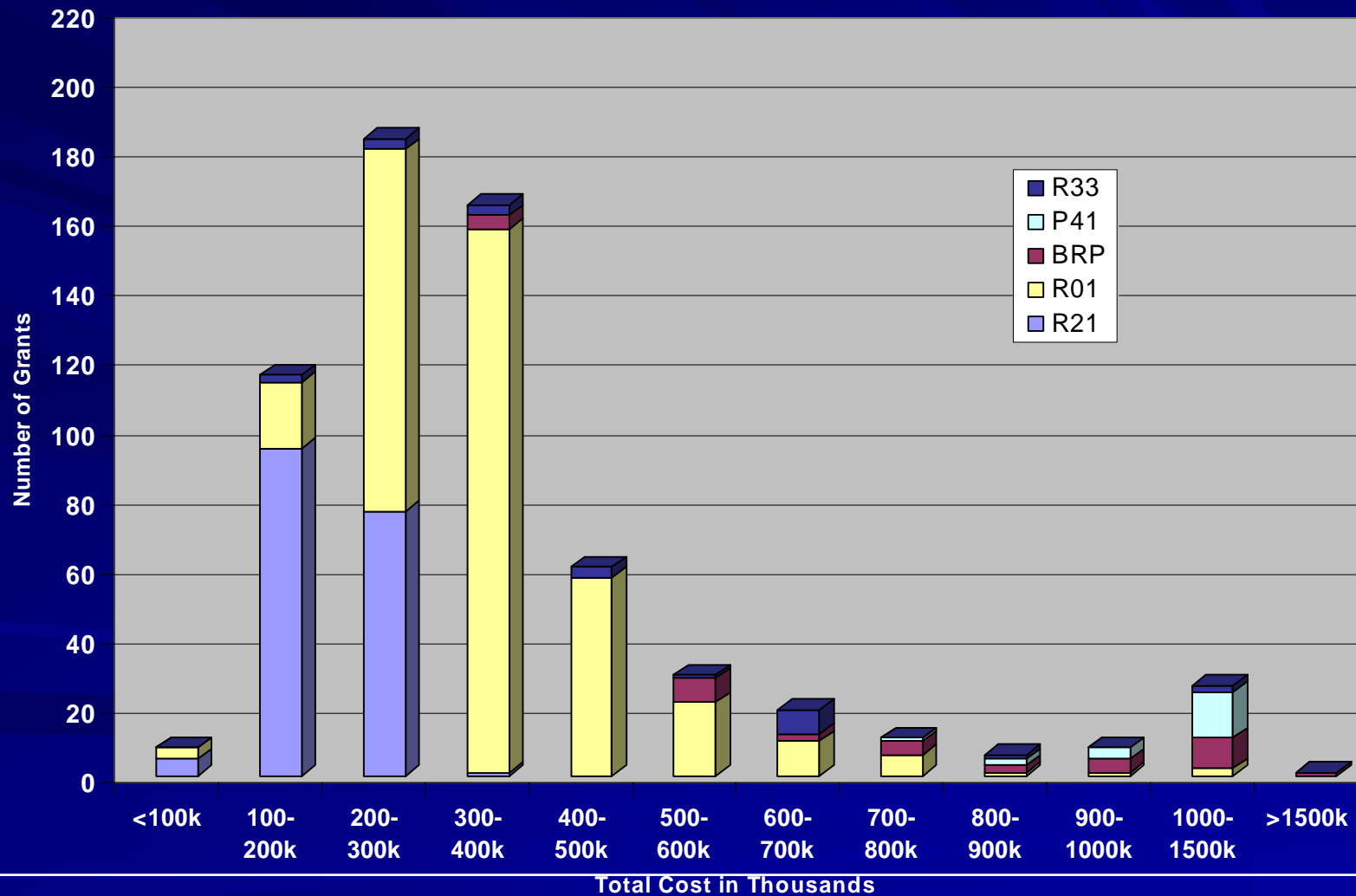


# Funding of BRPs by Program Area

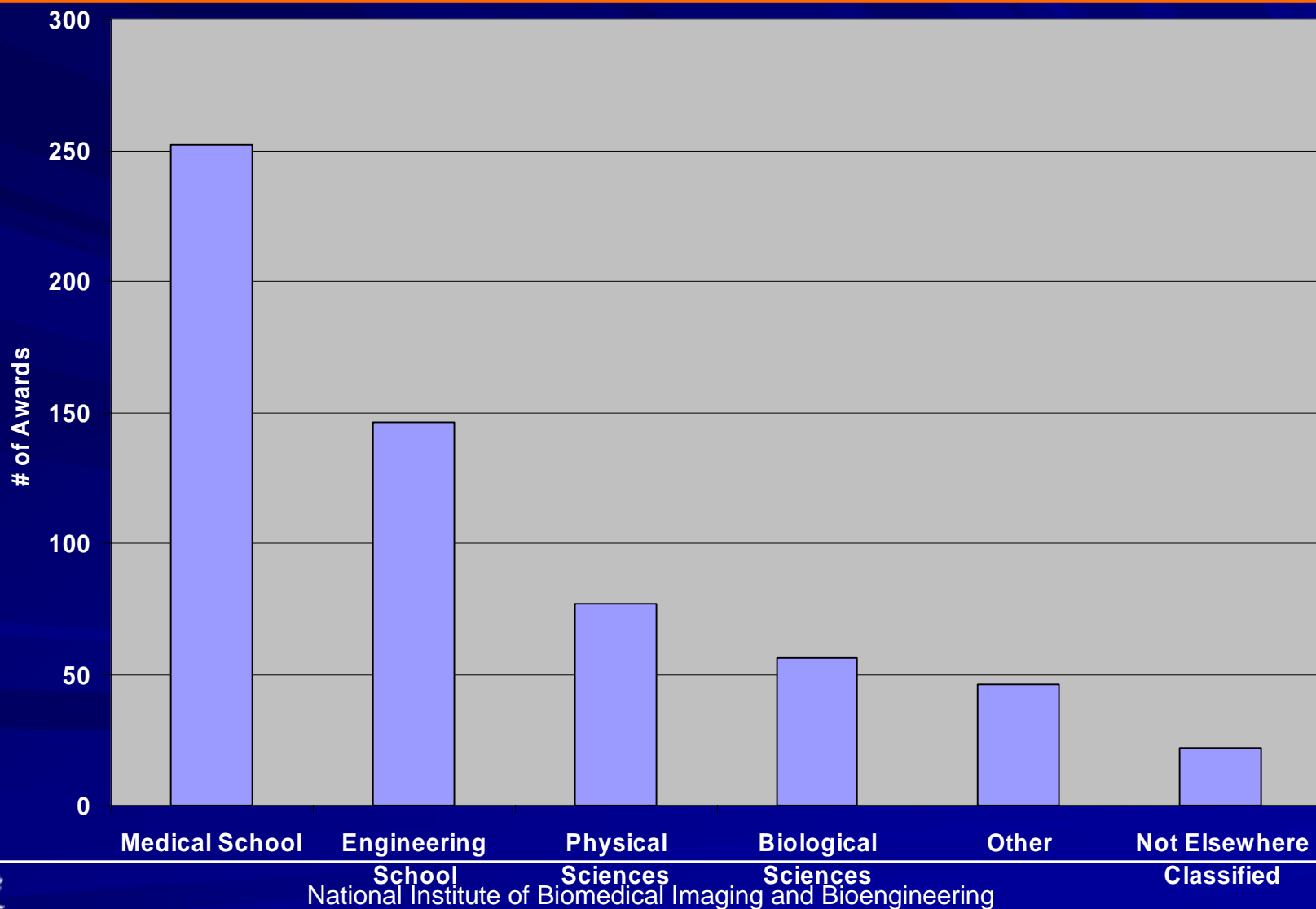
Total Number of Awards at NIBIB = 35    Total Number of Awards at NIH = 126    Median Cost = \$740k



# Average Cost of Award

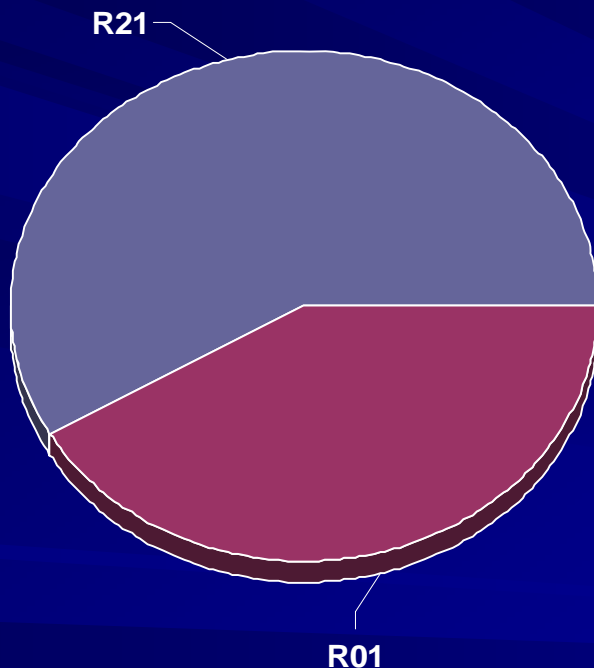


# Funding of R01 and R21 by School

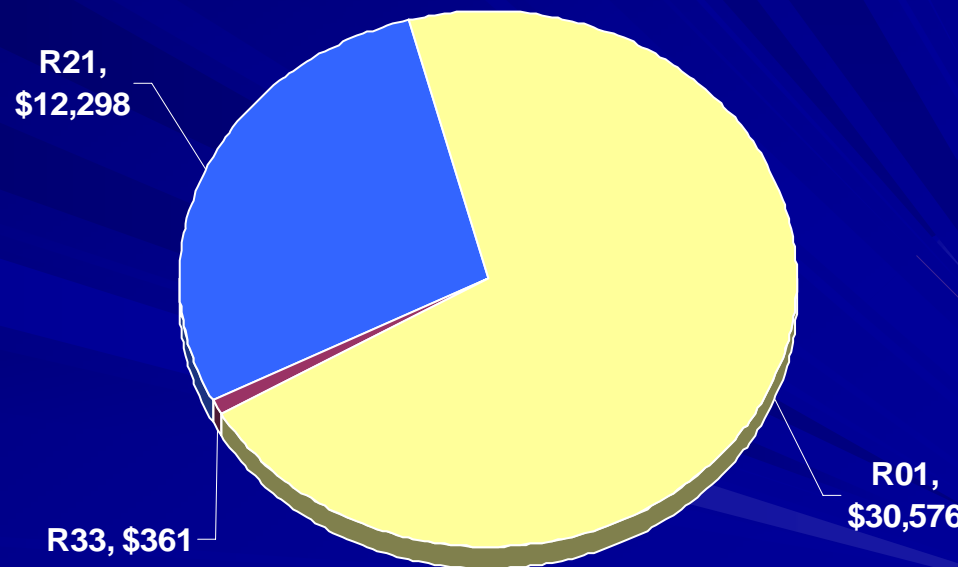


# Distribution of Awards and Funds by Research Mechanism

Numbers of competing awards



Cost of Competing Awards



FY04 Data



# Grantsmanship Workshops

- **First held at RPI in April 2005**
- **Plan about 2 regional workshops per year**
- **Scientific Programs at NIBIB/NIH**
- **Scientific Review and grant making policies and procedures at the NIH**
- **Individual question-and-answer sessions with the NIBIB program staff**



# Policy on New Investigator Funding

- Investigators New to the NIH who have scores within 5 percentile points of the pay line will be funded.
- This program will improve the success of new applicants for R01 awards.
- This policy will apply only to Program Announcement and unsolicited R01 applications.



# Areas of Scientific Emphasis Interdisciplinary Research

## Goal 2

- Targeted research programs that take advantage of novel technological advances and scientific discoveries to significantly improve health care.





# Interagency Opportunities in Multi-Scale Modeling in Biomedical, Biological, and Behavioral Systems

**RELEASED: August 20, 2004**

**LETTER OF INTENT RECEIPT DATE: September 22, 2004**

**PROPOSAL (APPLICATION) RECEIPT DATE: November 09, 2004**

- **Goal: Encourage the integrative systems engineering approach to multi-scale modeling, combining theoretical and computational approaches**
- **Based on NIBIB led Workshop held April 8, 2003 and 1st BISTIC Symposium November 6-7, 2003 and many other related workshops**
- **Participating Organizations – NSF, NIH, NASA, DOE**



# Alzheimer's Disease: Neuro Imaging Initiative

## RFA AG-04-005: NIBIB Participation

- Aim: Prospective collection of serial images (MRI/PET) for patients with AD, together with other bio sensor data from multiple sites to populate a public database resource.
- Goal: To stimulate the development and evaluation of informatics tools for clinical decision making.
- NIA tentative budget: \$60M/5yrs.
- NIBIB Role: Co-fund and provide expertise to design of informatics core and to later explore how to expand the design of the database as a resource for both the academia and industry through public private partnerships.
- NIBIB Budget: \$750K, year 1 for FY 2004.



# Areas of Scientific Emphasis Interdisciplinary Research Goal 3

- Accelerated translation of promising technologies to improve human health.



# Initiatives planned

- **Research, Regulation, Realization, and Reimbursement forums**
- **Office of translation**



# Areas of Scientific Emphasis Interdisciplinary Research

## Goal 4

- Reduced health disparities through new and affordable medical technologies and increased involvement of underserved populations and under-represented minorities.



- **Supplements to grants**
- **Participation at meetings**
- **BBSI**
- **Recruiting staff**



Areas of Scientific Emphasis  
Interdisciplinary Research  
Goal 5

- An intramural research program with interdisciplinary emphasis.



# **JULY 26, 2005 - NIBIB SEEKS SCIENTIFIC DIRECTOR**

The National Institute of Biomedical Imaging and Bioengineering seeks a new Scientific Director to lead its intramural research program. The Scientific Director will help chart the future of a nascent intramural program of NIBIB. The Scientific Director allocates an approximately \$6 million budget to intramural laboratories in coordination with the Director, NIBIB.





# Areas of Scientific Emphasis Interdisciplinary Research Training

## Goal 1

- Biomedical research training programs that integrate the physical, engineering, and life sciences.





HOWARD HUGHES MEDICAL INSTITUTE  
NATIONAL INSTITUTE OF BIOMEDICAL  
IMAGING AND BIOENGINEERING

# HHMI-NIBIB INTERFACES INITIATIVE

For Interdisciplinary Graduate Research Training

Program Announcement  
2005



Revised November 1, 2004

Register intent to apply by January 20, 2005  
Proposal submission deadline: June 15, 2005  
Awards announcement: November 2005



# Key Strategies

- **Set priorities** based on scientific merit, scientific opportunities, public health needs, and mission .
- **Encourage team science** training in interdisciplinary research .
- **Leverage funds and resources** through joint ventures, including other agencies and industry.
- Identify and support a number of large-scale, **high-impact projects**
- **Promote validation**, evaluation, and effectiveness studies by including these as objectives in initiatives
- **Promote entrepreneurial** training opportunities for students and academic researchers.

