



The View from Funding Agencies: What Areas Are Being Funded?



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July 1, 2012



Overview

- National Institutes of Health
- National Heart, Lung & Blood Institute
- Research Priorities
- Funding Opportunity Announcements
- Questions

Welcome to the Birthplace of the NIH: Circa 1887



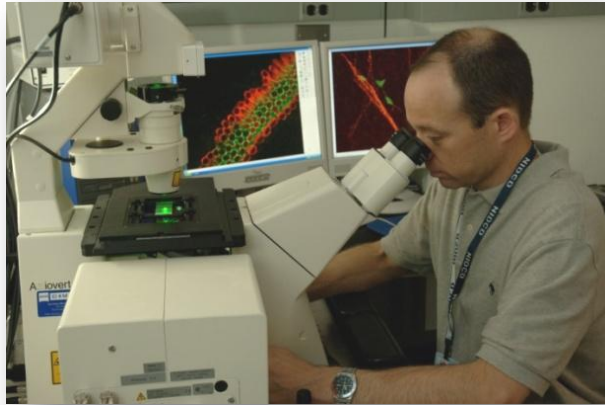
Located in a small attic room in the Marine Hospital; Staten Island, New York

...And to National Institutes of Health: Circa 2012



- The largest source of funding for medical research in the world
- One of 12 agencies under the Department of Health and Human Services

National Institutes of Health



The Nation's Medical Research Agency

Science in pursuit of **fundamental knowledge** about the nature and behavior of living systems and the **application of that knowledge** to extend healthy life and reduce the burdens of illness and disability.

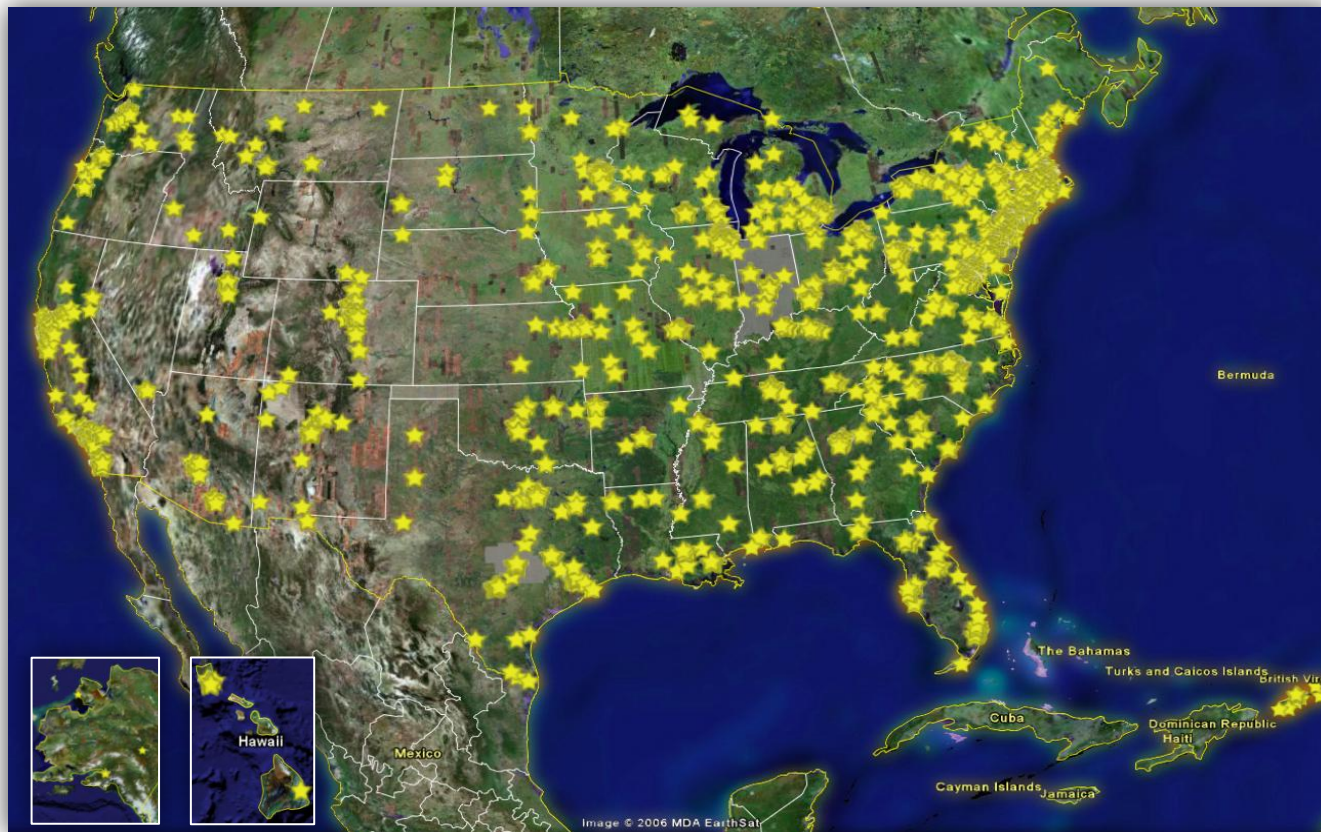


National Institutes of Health

NIH-funded research uncovers new knowledge that leads to better health for everyone:

- **Conducts research** in its own laboratories
- **Supports research** of non-federal scientists in universities, medical schools, hospitals, and research institutions throughout the United States and overseas
- **Translates** scientific information into clinical guidelines and community programs
- **Trains** research investigators
- **Fosters communication** of medical information

Most NIH Funds Are Spent Beyond Bethesda

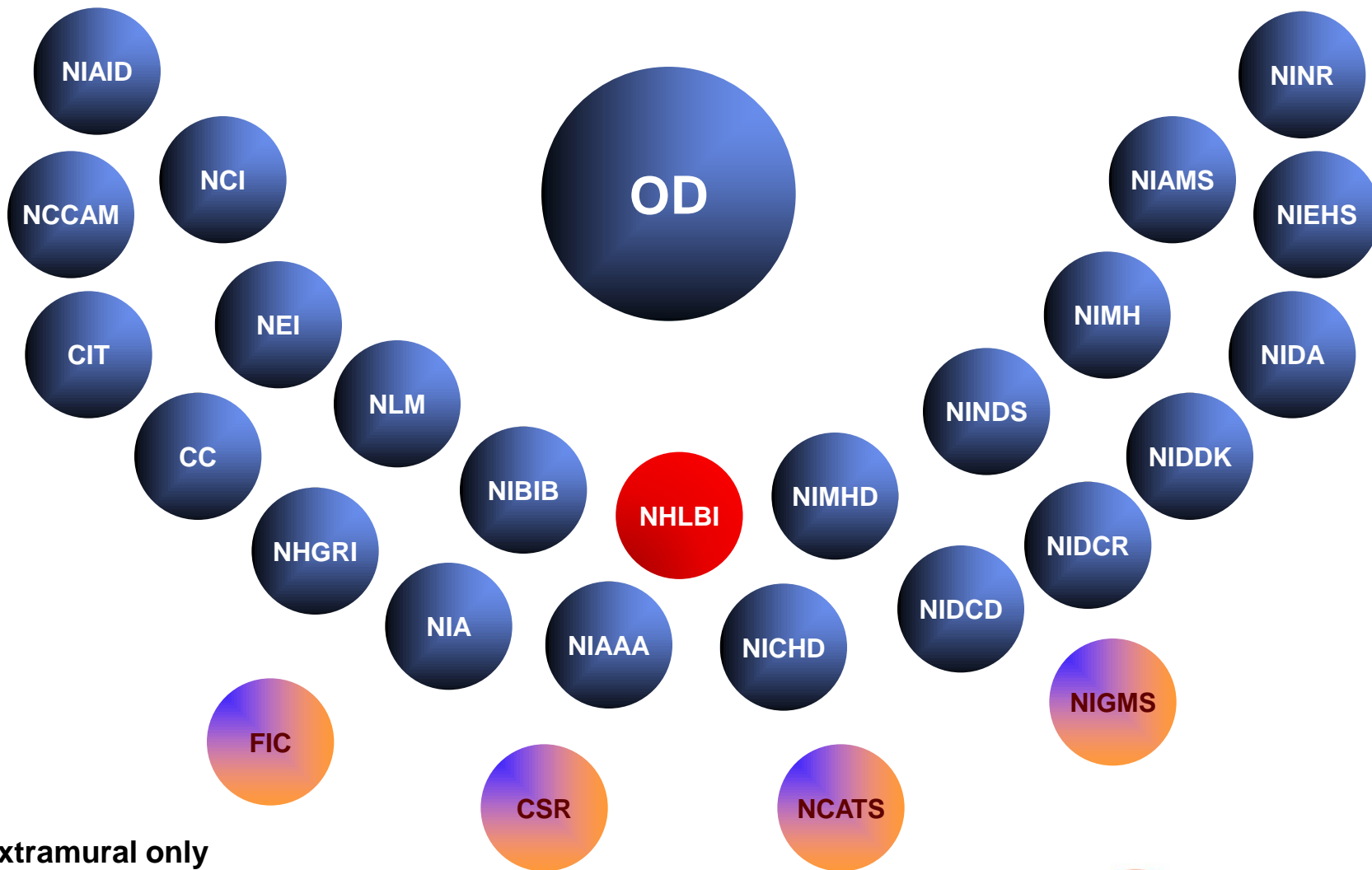


NIH Budget,
FY 2010:
\$30.759 B

At NIH
(intramural):
\$3.22 (11%)

Outside NIH
(extramural):
\$26.3 B (89%)

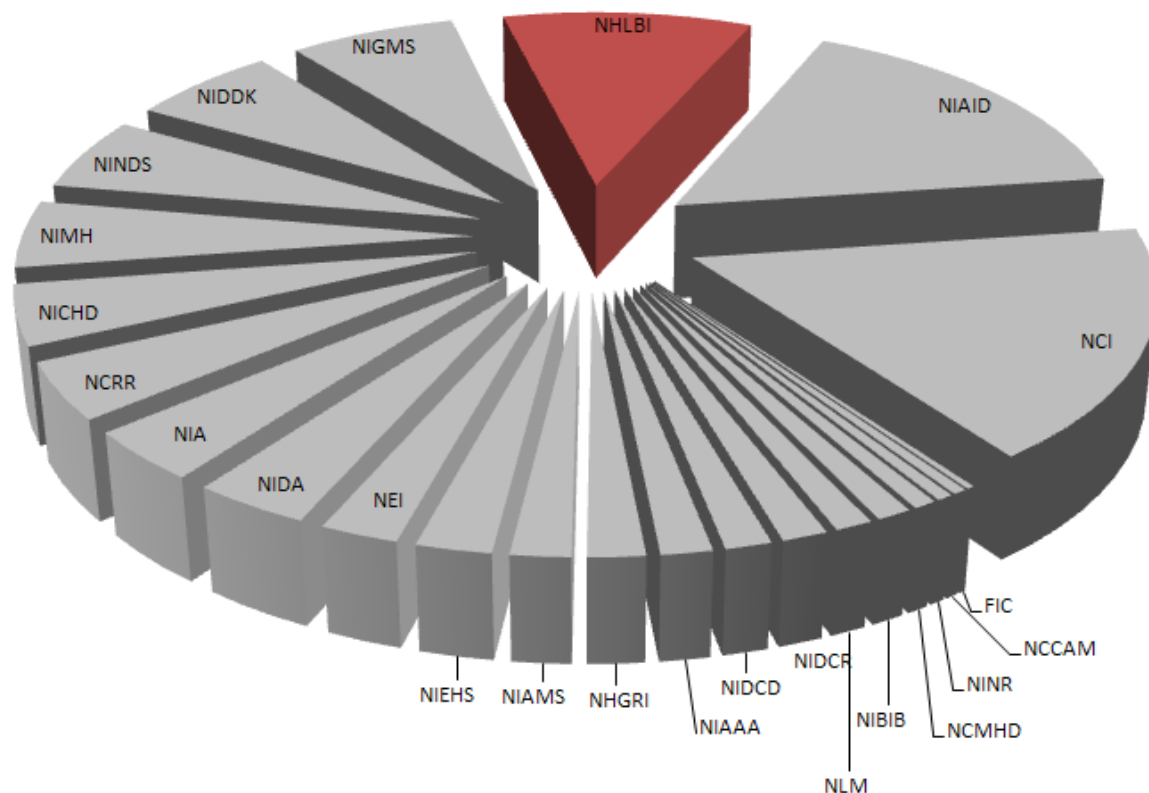
Structure of the NIH: 27 Institutes and Centers



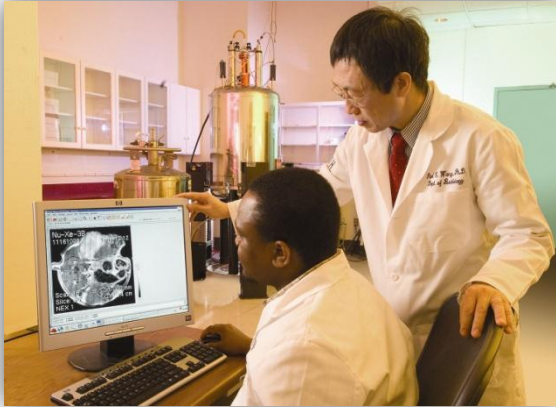
 Extramural only

NHLBI Is the Third Largest NIH Institute

NCI	\$5 B
NIAID	\$4.7 B
NHLBI	\$3 B
NIGMS	\$2 B
NIDDK	\$1.8 B



National Heart, Lung, and Blood Institute



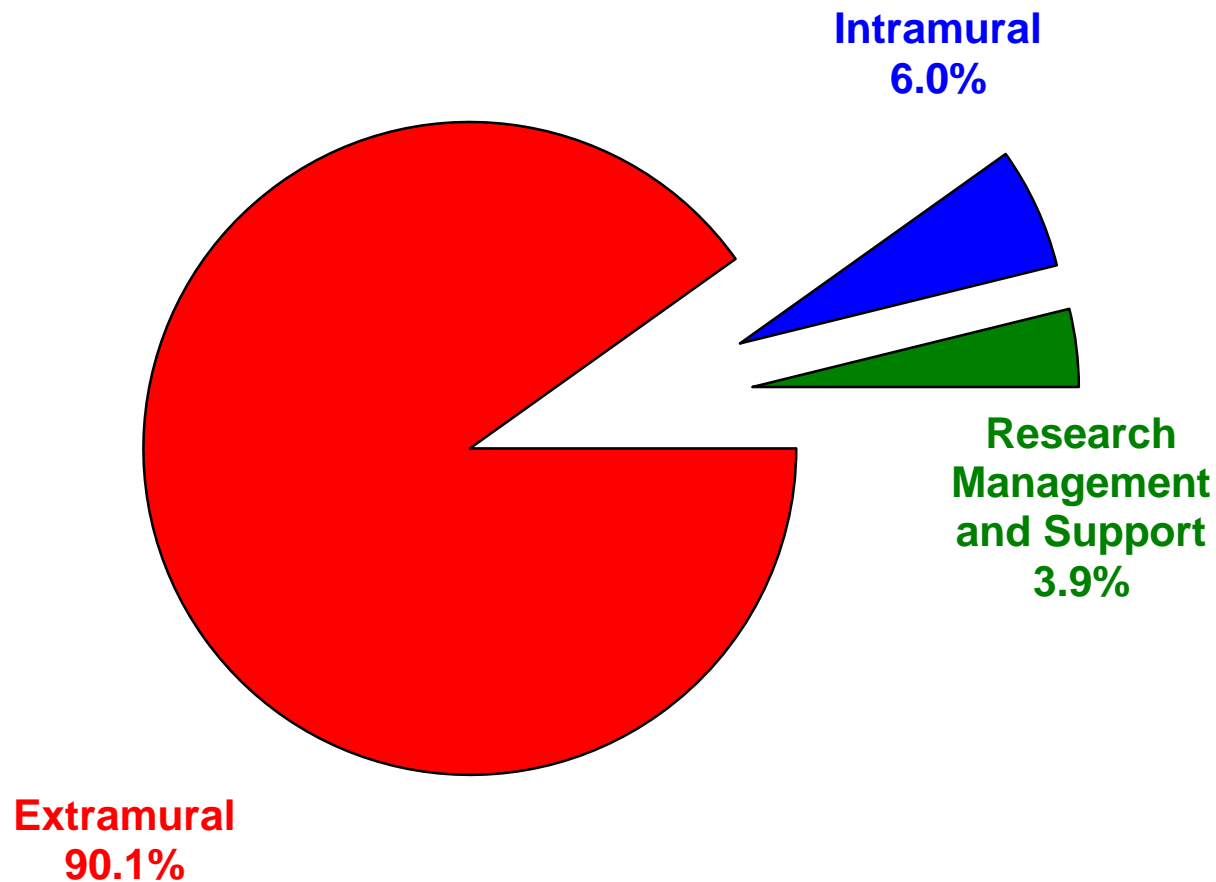
Mission:

Provide global leadership for **research, training, and education programs** to promote the prevention and treatment of **heart, lung, and blood diseases** and enhance the health of all individuals so that they can live longer and more fulfilling lives.

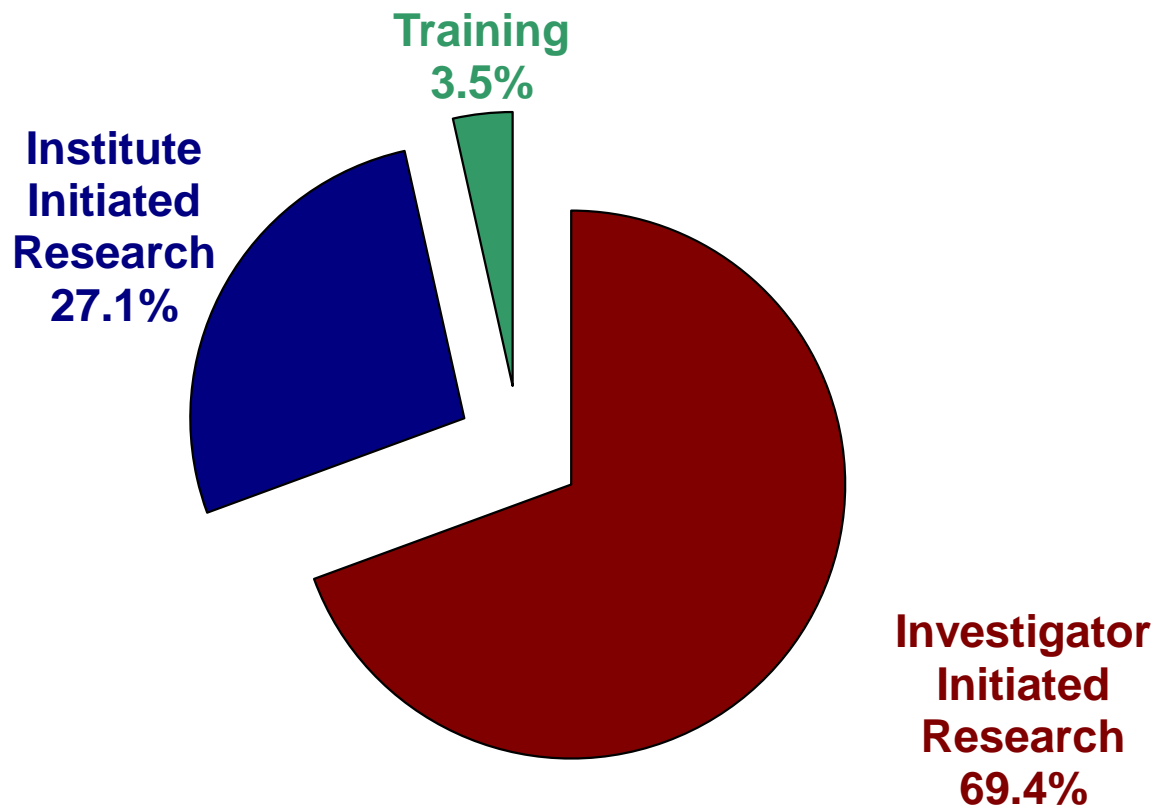
Achieving the Mission

- Stimulates **basic** discoveries about the causes of disease, enables the **translation** of basic discoveries into clinical practice, fosters **training** and mentoring of emerging scientists and physicians, and **communicates** research advances to the public.
- Creates and supports a robust, collaborative research infrastructure in **partnership with private and public organizations**, including academic institutions, industry, and other govt agencies.
- **Collaborates** with patients, families, health care professionals, scientists, professional societies, patient advocacy groups, community orgs, and media to promote the application of research results and leverage resources to address public health needs.
- Collaborates with international organizations to help reduce the burden of heart, lung, and blood diseases worldwide.

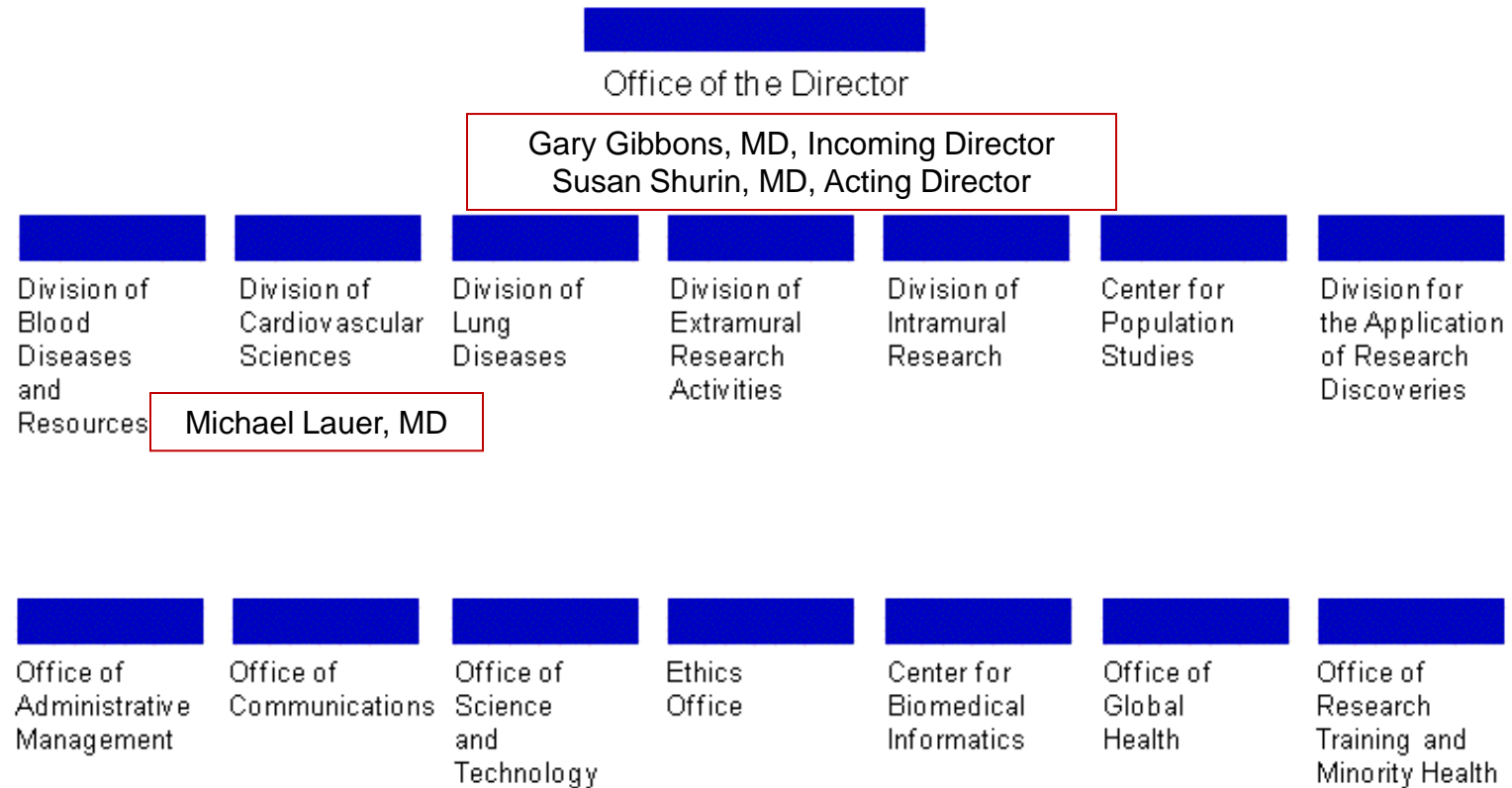
Distribution of NHLBI Budget - FY 2010



Distribution of NHLBI Extramural Budget - FY 2010

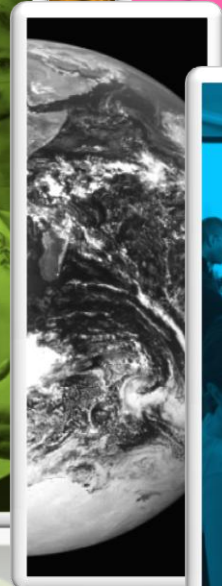
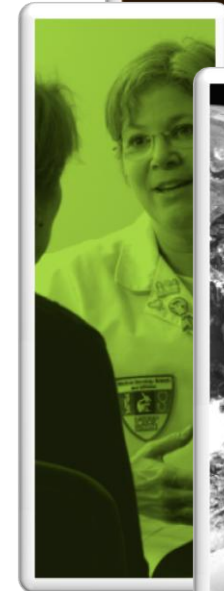
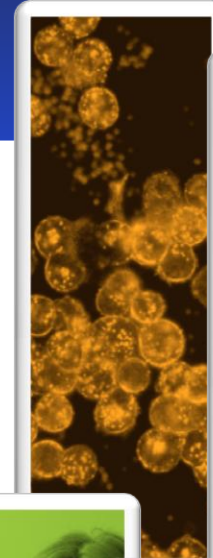


NHLBI Organizational Chart



Dr. Collins' Major Opportunities

- Applying high throughput technologies to understand fundamental biology, and to uncover the causes of specific diseases
- Translating basic science discoveries into new and better treatments
- Putting science to work for the benefit of health care reform
- Encouraging a greater focus on global health
- Reinvigorating and empowering the biomedical research community

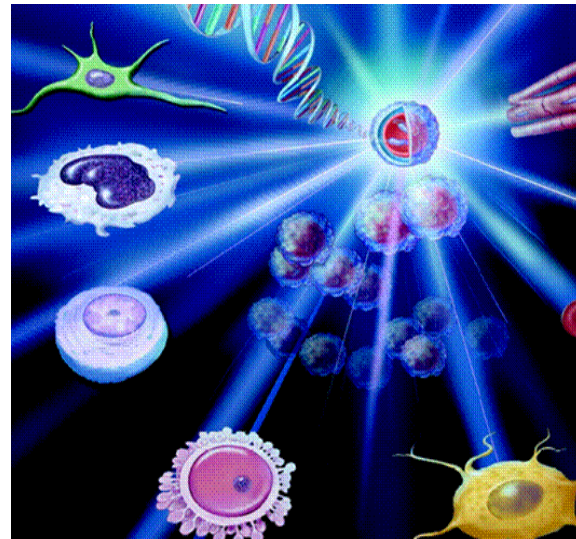


NHLBI Strategic Plan Goal 1

Improve understanding of the molecular and physiologic basis of health and disease. Use that understanding to develop improved approaches to disease prevention, diagnosis and treatment.

Form → Function

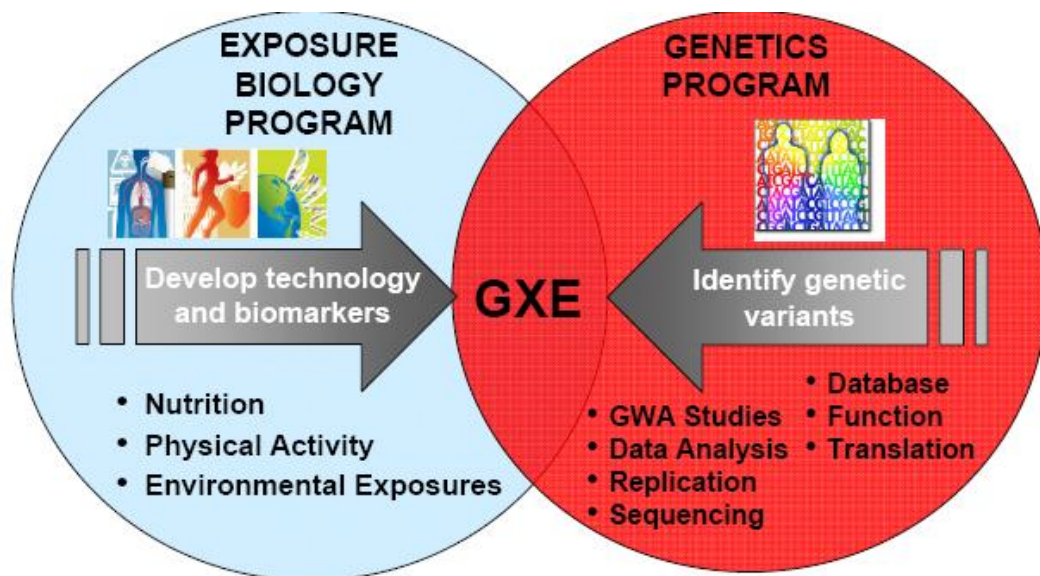
Example: Using echo and advanced imaging to uncover the pathophysiology of atrial fibrillation or valvular heart disease



NHLBI Strategic Plan Goal 2

To develop personalized preventive and therapeutic regimens for cardiovascular, lung, and blood diseases.

Function → Cause

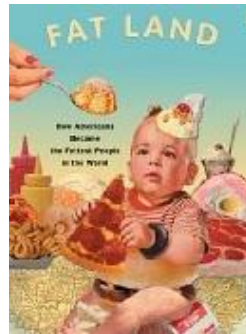
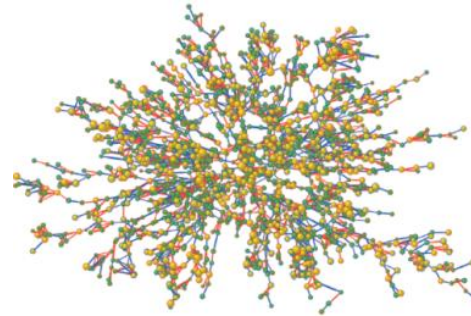
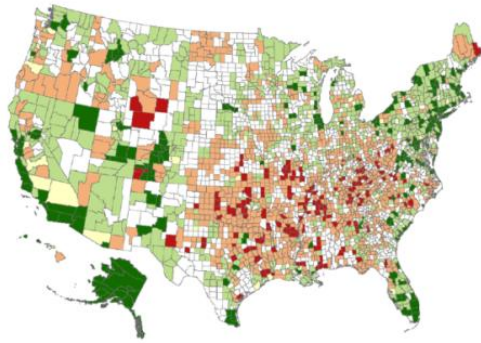


NHLBI Trials

BARI 2D
CLEVER
CORAL
ACCORD
FREEDOM
STICH
TOPCAT
CUBANA
HF-ACTION
POWER

NHLBI Strategic Plan Goal 3

Generate an improved understanding of the processes involved in translating research into practice and use that understanding to enable improvements in public health and to stimulate further scientific discovery. *Cause* → *Cures*



How NHLBI Establishes Scientific Priorities

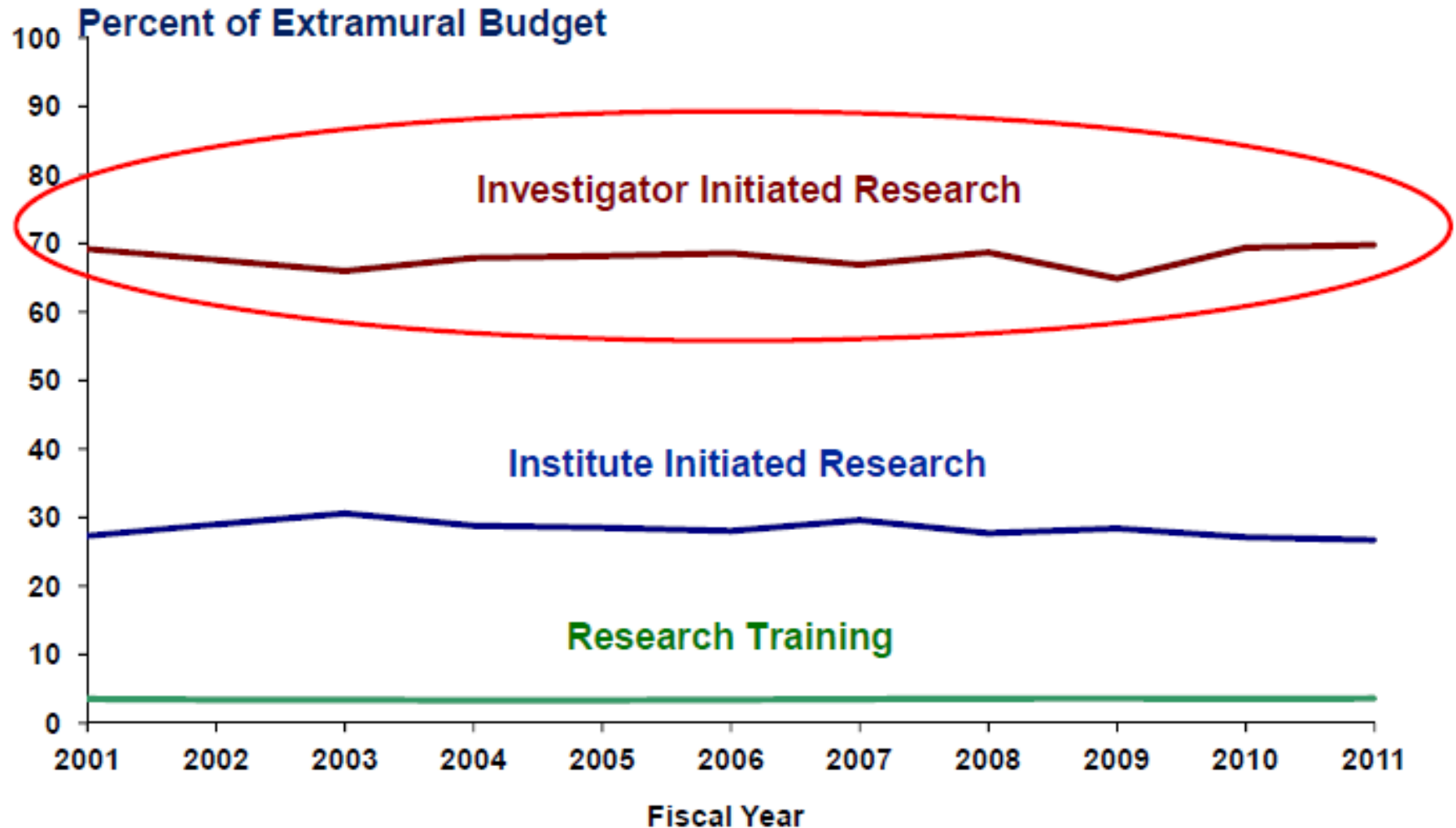
- NIH Goals
- Mission statement
- Strategic Plan
- Portfolio Analysis
- Gaps in Science
- Professional society recommendations
- Workshops
- Advisory groups

Other Factors
Feasibility
Innovation
Likelihood that entity outside Institute would support
Multidisciplinary Nature
Potential impact on individual health
Potential impact on national health care expenditures
Potential impact on population health
Qualifications and track record of the proposer
Quality of proposed methods
Quality of writing and organization of proposal
Relevance to global agenda
Relevance to mission and strategic plan
Research need/Lack of studies
Study cost
Uniqueness or timeliness of opportunity

Opportunities for Extramural Research

- Investigator-initiated
 - Majority of NHLBI budget
 - Research Project Grants (e.g. R01s, R21s)
 - Less than \$500K vs. >\$500K
- NHLBI-initiated (special circumstances)
 - RFA Programs
 - Specialized Review
 - Set Aside Funds
 - RFPs (Contracts)

Investigator-initiated research far outnumbers Institute-initiated



Exploratory/Developmental (R21) Bioengineering Research Grants

- Encourages innovation and high risk/impact bioengineering research in new areas
- Funding is for 2 years, with up to \$275,000 direct costs over the 2 year period
- <http://grants.nih.gov/grants/guide/pa-files/PA-10-010.html>

Bioengineering Research Grants (R01)

- Supports basic and applied multi-disciplinary research that addresses important biological, bioengineering or medical research problems
- Funding is for up to 5 years; generally less than \$500K direct costs per year
- Usually supports a single laboratory or a small number of investigators
- <http://grants.nih.gov/grants/guide/pa-files/PA-10-009.html>

Bioengineering Research Partnerships (R01)

- Supports basic, applied, and translational multi-disciplinary research that addresses important biological or medical research problems
- Funding is for up to 5 years
- NHLBI allows up to \$1 million direct costs per year; other institutes may allow up to \$2 million direct costs per year
- Supports partnerships between 2 or more groups; industrial participation encouraged
- <http://grants.nih.gov/grants/guide/pa-files/PAR-10-234.html>

Small Business Support

- NIH SBIR and STTR programs
 - SBIR - focused on small businesses
 - STTR - technology transfer from academic institutions to small businesses
 - Phase I grants typically for \$100K for 6 months
 - Phase II grants typically up to \$750K per year for 2 years
 - Technology development through clinical trials
 - <http://grants.nih.gov/grants/funding/sbir.htm>
- NHLBI Phase II SBIR Competing Continuation grants
 - Research required to obtain FDA clearance or approval
 - Up to \$1 million total costs per year for up to 3 years
 - <http://www.nhlbi.nih.gov/funding/sbir/index.htm>

Ancillary Studies in Clinical Trials (R01)

- Supports time-sensitive ancillary studies related to heart, lung, and blood diseases and sleep disorders in conjunction with ongoing NIH- or non-NIH-supported clinical trials.
- Funding is for up to 4 years
- Up to \$250K in direct costs per year
- Example: Imaging studies to elucidate disease progression or mechanism of action of the intervention
- <http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-13-003.html>

NHLBI Population Studies

- NHLBI Translational Imaging Research
 - Framingham Heart Study
 - Jackson Heart Study
 - Atherosclerosis Risk in Communities Study
 - Multi-Ethnic Study of Atherosclerosis
 - Coronary Artery Risk Development in Young Adults Study
 - Hispanic Community Health Study



RePORT: report.nih.gov

U. S. Department of Health & Human Services www.hhs.gov

NATIONAL INSTITUTES OF HEALTH
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NEWS UPDATES
On February 1, 2010, the NIH released actual FY 2009 spending in 218 major research, disease, and condition categories, including the amounts provided under the American Recovery and Reinvestment Act. [more...](#)

RePORTER
SEARCH PORTFOLIOS OF FUNDED RESEARCH

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NIH DATA BOOK
The NIH Data Book (NDB) provides basic summary statistics on extramural grants and contract awards, grant applications, the organizations that NIH supports, the scientific workforce, and trainees and fellows supported through NIH programs. Tables and charts are provided in a variety of formats, including PowerPoint (PPT) slides and Portable Document Format (PDF) files. [More >>](#) [1](#) [2](#) [3](#) [4](#) [5](#)

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News from the NHLBI

Most recent content is listed first. The collection includes content published

Journal of the American College of Cardiology
© 2009 by the American College of Cardiology Foundation
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Vol. 53, No. 12, 2009
ISSN 0735-1097/09/\$36.00
doi:10.1016/j.jacc.2009.01.010

News from the NHLBI

News From The NHLBI | November 01, 2011

Population-Based Cohort Studies: Still Relevant?

Paul Sorlie, PhD; Gina S. Wei, MD, MPH

J Am Coll Cardiol. 2011;58(19):2010-2013. doi:10.1016/j.jacc.2011.08.020.

News From The NHLBI | August 24, 2010 FREE

INTERMACS (Interagency Registry for Mechanically Assisted Circulatory Support): A New Paradigm for Translating Registry Data Into Clinical Practice

Marissa A. Miller, DVM, MPH; Karen Ulisney, MSN, CRNP; J. Timothy Baldwin, PhD

J Am Coll Cardiol. 2010;56(9):738-740.

The Cardiovascular Programs of the National Heart, Lung, and Blood Institute: From Vision to Action to Impact

Elizabeth G. Nabel, MD, Michael S. Lauer, MD

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**National Heart
Lung and Blood Institute**
People Science Health