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

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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
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.
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

- NIAID
- NCCAM
- CIT
- CC
- NEI
- NLM
- NIBIB
- NHGRI
- NIA
- NIAAA
- NIAA
- NIDCD
- NIDCR
- NIDDK
- NIDA
- NIDCD
- NIDCR
- NIDDK
- NIEHS
- NIGMS
- NCATS
- NIBIB
- NIMHD
- NINDS
- NIMH
- NIAMS
- NINR
- NINDS
- NLM
- NEI
- NCI
- NIAID
- NCCAM
- CIT
- CC

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
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

- Extramural: 90.1%
- Intramural: 6.0%
- Research Management and Support: 3.9%
Distribution of NHLBI Extramural Budget - FY 2010

- Investigator Initiated Research: 69.4%
- Institute Initiated Research: 27.1%
- Training: 3.5%
NHLBI Organizational Chart

Gary Gibbons, MD, Incoming Director
Susan Shurin, MD, Acting Director

Michael Lauer, MD
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 fibrosis 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

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<th>Other Factors</th>
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<td>Uniqueness or timeliness of opportunity</td>
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Bild D and Lauer M.  *JACC* 2009;53:2259-61
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.
• 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
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
• [Link to NIH grants guide](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
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

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
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.
Communication

Topics >

News from the NHLBI
Most recent content is listed first. The collection includes content published by the NHLBI, the National Heart, Lung, and Blood Institute of the National Institutes of Health.

News From The NHLBI | November 01, 2011

Population-Based Cohort Studies: Still Relevant?
Paul Sorlie, PhD; Gina S. Wei, MD, MPH


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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