Overview of the NIH Grant System

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Acting Chief, Pregnancy and Perinatology Branch
National Institutes of Health

• Much of the biomedical research in the United States is supported by the Federal government, primarily the National Institutes of Health (NIH)

• One agency of 10 within the U.S. Department of Health and Human Services (HHS)

• Comprises 27 Institutes and Centers as well as Offices (ICOs)
U.S. Dept. of Health and Human Services

Secretary of Health and Human Services

- Administration for Children and Families (ACF)
- Administration for Community Living (ACL)
- Food and Drug Administration (FDA)
- Health Resources and Services Administration (HRSA)

    - Center for Medicare & Medicaid Services (CMS)
    - Agency for Healthcare Research and Quality (AHRQ)
    - Indian Health Services (IHS)
    - National Institutes of Health (NIH)

    - Centers for Disease Control and Prevention (CDC)
    - Substance Abuse and Mental Health Services Administration (SAMHSA)
Balanced National Biomedical Research Portfolio

NIH - ~$30B

Private Sector - ~$60B
A Typical Institute/Center

- National Advisory Council
- Office of the IC Director
- Board of Scientific Counselors

Extramural:
- Scientific Programs
  - Grants
  - Contracts

Intramural:
- Laboratory Studies
- Clinical Studies
Total Spending for United States – FY2016

- Pensions, 19%
- Health Care, 22%
- Education, 15%
- Defense, 12%
- Welfare, 7%
- Transportation, 5%
- Protection, 4%
- General Government, 3%
- Other Spending, 7%
- Interest, 5%
- Other Spending, 7%

NIH Gets <1% of the U.S. Budget

Rest of U.S. Budget ~$4 Trillion (~$4,000 Billion)

NIH ~$30 Billion
United States Discretionary Budget Proposed 2016

President's Proposed $1.15 Trillion Discretionary Spending Budget (FY 2016)

- Social Security, Unemployment & Labor: $31.4 billion - 3%
- International Affairs: $41.6 billion - 4%
- Energy & Environment: $41.6 billion - 4%
- Medicare & Health: $50.6 billion - 5%
- Government: $66.2 billion - 6%
- Veterans' Benefits: $70.5 billion - 6%
- Housing & Community: $72.2 billion - 6%
- Education: $74.1 billion - 6%
- Transportation: $27.4 billion - 2%
- Food & Agriculture: $13.3 billion - 1%
- Military: $625.2 billion - 54%

Source: OMB, National Priorities Project

nationalpriorities.org
FY 2012 Senate Approved Budget
NIH Funding By Institute/Center* ($ in Millions)

- Cancer: $5,082
- Allergy: $4,499
- Heart: $3,085
- General Medicine: $2,435
- Diabetes_Kidney: $1,800
- Neurology: $1,629
- Mental Health: $1,483
- Office of Director: $1,461
- Child Health: $1,324
- Aging: $1,106
- Drug Abuse: $1,055
- Eye: $704
- Environmental Health: $687
- Translate Sciences: $576
- Arthritis: $537
- Genome: $514
- Alcohol Abuse: $460
- Deafness: $417
- Dental: $411
- Bio Imaging: $339
- Library: $338
- Minority Health: $277
- Nursing: $145
- Alternative Medicine: $128
- Fogarty International: $70

*Includes funding for Type 1 Diabetes.
Review Process for a Research Grant

1. Investigator Initiates Research Idea
2. Investigator Conducts Research
3. Investigator Allocates Funds
4. Investigator Submits Application
5. School or Other Research Center Reviews Application
6. National Institutes of Health Assigns to IC & IRG/Study Section
7. Study Section Reviews for Scientific Merit
8. Institute Evaluates for Relevance
9. Advisory Councils and Boards Recommends Action
10. Institute Director Takes final action
Review System for Grant Applications

Scientific Review Group (SRG) – First Level
- Independent outside review
- Evaluate scientific merit, significance
- Recommend length and level of funding

Output: Priority Score and Summary Statement

Advisory Council – Second Level
- Assess quality of SRG process
- Offers recommendation to Institute Staff
  - Evaluates program priorities and relevance
  - Advises on policy

Output: Funding Recommendations

Institute Director
- Makes final decision based on Council input, programmatic priorities
- Must also Pass Administrative Review

Output: Awards or Resubmission

- 3 - 7 months
- 1 - 3 months
**Scoring System**

Reviewers have been instructed to score each of the five review criteria, and the overall impact/priority of each application, on a 9-point rating scale according to the following descriptions and additional guidance:

<table>
<thead>
<tr>
<th>Score</th>
<th>Descriptor</th>
<th>Additional Guidance on Strengths/Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exceptional</td>
<td>Exceptionally strong with essentially no weaknesses</td>
</tr>
<tr>
<td>2</td>
<td>Outstanding</td>
<td>Extremely strong with negligible weaknesses</td>
</tr>
<tr>
<td>3</td>
<td>Excellent</td>
<td>Very strong with only some minor weaknesses</td>
</tr>
<tr>
<td>4</td>
<td>Very Good</td>
<td>Strong but with numerous minor weaknesses</td>
</tr>
<tr>
<td>5</td>
<td>Good</td>
<td>Strong but with at least one moderate weakness</td>
</tr>
<tr>
<td>6</td>
<td>Satisfactory</td>
<td>Some strengths but also some moderate weaknesses</td>
</tr>
<tr>
<td>7</td>
<td>Fair</td>
<td>Some strengths but with at least one major weakness</td>
</tr>
<tr>
<td>8</td>
<td>Marginal</td>
<td>A few strengths and a few major weaknesses</td>
</tr>
<tr>
<td>9</td>
<td>Poor</td>
<td>Very few strengths and numerous major weaknesses</td>
</tr>
</tbody>
</table>

**Minor Weakness:** An easily addressable weakness that does not substantially lessen impact

**Moderate Weakness:** A weakness that lessens impact

**Major Weakness:** A weakness that severely limits impact
Life Cycle of a Research Concept

EXTRAMURAL COMMUNITY

Council

“On The Street”

Applications

Proposals

P, R, C, G

Concept Review Meeting

Release of RFA, RFP

Review Meeting

Solicitation Development Phase

Concept Development Phase

Applicants

Offerors

Summary Statement

Technical Evaluation Report

Initial Review Phase

Secondary Review Phase

Negotiation Phase

P, C

R

Source Selection Meeting

P

C

Funding Plan

G

Grant Award

P, G

Contract Award

P, C

Post-Award Monitoring Phase

Council

P=program, R=review, C=contracts, G=grants
Overview of NIH Grants Process

Principal investigator

Conducts research

Manages funds

IC monitors programmatic & business management performance of the grant

Grantee

Initiates research idea and prepares application

Submits application

NIH center for scientific review assigns to institute/center or to CSR study section

2nd level review: council/board recommends action

Integrated review group (IC or CSR) evaluates for scientific merit

IC evaluates program relevance and need

IC makes funding selections and issues grant awards

Nih

IC monitors programmatic & business management performance of the grant
## Timeline: New Applications

<table>
<thead>
<tr>
<th>Receipt Date</th>
<th>Scientific Review</th>
<th>Council Review</th>
<th>Award Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 5</td>
<td>July</td>
<td>October</td>
<td>December</td>
</tr>
<tr>
<td>June 5</td>
<td>October</td>
<td>January</td>
<td>April</td>
</tr>
<tr>
<td>October 5</td>
<td>March</td>
<td>May</td>
<td>July</td>
</tr>
</tbody>
</table>
Thank You!

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