Funding Options: Research Awards

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Research Awards

• Overview
• Process
• Mechanisms
• Resources
NIH is the steward of medical and behavioral research for the Nation. Its mission is 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 is organized into:

27 Institutes & Centers (IC) each with different:

- missions and priorities
- budgets
- ways of deciding which grants to fund
The NIH Footprint

NIH is an institution
(Intramural Research)

~ 6,000 scientists
~ 10% of NIH budget

NIH supports institutions & people
(Extramural Research)

> 4,000 institutions
> 300,000 scientists & research personnel
~ 85% of the NIH budget

NIH Grant Statistics

Fiscal Year 2013

– 49,517 total applications
– 1336 NIBIB applications

– NIH overall success rate 16%
– NIBIB success rate 13%

Sigh...
NIH FY12 Budget

NIH divides most of its investment according to the interests of the component parts (i.e. Institutes or Centers), with <4% allocated to trans-NIH initiatives.

Total = $30.9 B

About 85% distributed via Extramural grants, contracts, cooperative agreements.

Research Project Grants (RPGs):
The Mainstay of NIH Sponsored Research

Awards as percentage of all research grants.

Research Project Grants (RPGs) include R00, R01, R03, R15, R21, R22, R23, R29, R33, R34, R35, R36, R37, R55, R56, RL1, RL5, RL8, P01, P42, PN1, UC1, UC7, U01, U19, U34, DP1, DP2, RL1, RL2, RL5, RL9.

Research Project Grants (RPGs) Size

Research Project Grants (RPGs) include R00, R01, R03, R21, R22, R23, R29, R33, R34, R35, R36, R37, R55, R56, RL1, RL5, RL9, P01, P42, PN1, UC1, UC7, U01, U19, U34, DP1, DP2, RL1, RL2, RL5, RL9. More info available at: http://www.report.nih.gov

Applications, Awards, Success Rates

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Organizational Registration Requirements

Organizations should allow at least four to six weeks to complete all registrations.

• DUNS Number: Your organization will need a Data Universal Numbering System (DUNS) number, an identifier government vendors need to register their organization in the System for Award Management (SAM) so they can apply for a federal grant.

• SAM is a free website which consolidates Federal procurement systems and the Catalog of Federal Domestic Assistance. Currently CCR, FedReg, ORCA and EPLS have been migrated into SAM.gov. SAM registration is necessary to submit applications to Grants.gov.

• Grants.gov: Registration Required.

• eRA Commons: Registration Required.
Principal Investigator Registration Requirements

• **eRA Commons**: PI/PDs should ensure that the applicant organization creates an eRA Commons account for you at least one month before the application is to be submitted. Ask your eRA Commons signing official (SO) to register you and associate your profile with your organization in the system. (This individual is typically someone in your central grants office.)

• Designating an Assistant in the Commons: Once your own Commons account is set up, you have the option to delegate a Commons account holder to an assistant role (ASST) so he or she can view the status of your electronic applications. The person in the assistant role sees the same information as the signing official -- he or she can review errors and warnings and can see the application image, but cannot view the summary statement. For more on how to assign the assistant role, read the [May 1, 2007 NIH Guide Notice](#).

• Identify your organization’s authorized organizational representative (AOR). Your AOR might be the same person as your signing official. Only the AOR can submit your application to Grants.gov. Keep in mind that Grants.gov's use of the term “applicant” refers to your organization.

<table>
<thead>
<tr>
<th>Type of Funding Opportunity Announcements</th>
<th>Receipt Date</th>
<th>Money Set Aside</th>
<th>Peer Review</th>
<th>Specificity of Topic</th>
<th>Advantage to Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Announcements</td>
<td>Standard receipt dates, usually open for three years</td>
<td>None</td>
<td>In Center for Scientific Review (CSR) or in an IC, by one of many review committees</td>
<td>Non-specific, investigator-initiated “unsolicited” research. Not all ICs participate in all overall payline parent FOAs.</td>
<td>May submit any topic within the breadth of the NIH mission. Competition tied mainly to the IC's overall payline</td>
</tr>
<tr>
<td>IC-Specific Program Announcements (PA)</td>
<td>Standard receipt dates, usually open for three years</td>
<td>No set asides (unless PAS); high-priority applications may be funded beyond the payline</td>
<td>In CSR or in an IC, by one of many review committees (unless PAR)</td>
<td>Often broadly defined or a reminder of a scientific need; investigator-initiated “unsolicited” research</td>
<td>Competition tied mainly to the IC’s overall payline</td>
</tr>
<tr>
<td>Request for Applications (RFA)</td>
<td>Single</td>
<td>Specifies funds and targets number of awards</td>
<td>Usually in and IC, but sometimes in CSR. Same review committee for all applications.</td>
<td>NIH-Requested Research; Well-defined scientific area</td>
<td>Competition depends on number of applicants and dollars set aside “Parent” FOAs.</td>
</tr>
</tbody>
</table>
Human Subjects and Vertebrate Animal Requirements

- **Institutional Approval for Research Using Human Subjects:**
  The HHS regulations for Protection of Human Subjects in 45 CFR Part 46 define a human subject as a living person about whom an investigator conducting research obtains either data through intervention or interaction with the person, or identifiable private information.

- **Institutional Approval for Research Using Vertebrate Animal:**
  Office of Laboratory Animal Welfare (OLAW) Web Site
  The Public Health Service (PHS) requires institutions to establish and maintain proper procedures to ensure the appropriate care and use of all animals involved in research, research training, and biological testing activities conducted or supported by the PHS. Investigators seeking PHS funds to support animal activities in their research must comply with the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals.
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NIH Research Project Grant Program (R01)

– Used to support a discrete, specified, circumscribed research project
– NIH's most commonly used grant program
– No specific dollar limit unless specified in FOA
– Advance permission required for $500K or more (direct costs) in any year
– Generally awarded for 3–5 years
– All ICs utilize
– See parent FOA: PA-13-302
New and Early-Stage Investigators in the R01 Program

**New Investigator** – Applicant has not previously been a PD/PI on a significant NIH independent research award.

**Early-Stage Investigator** - New Investigator within 10 yrs of completing their terminal degree or medical residency.

Peer reviewers will focus more on the approach of early-stage investigators than their track record and expect less preliminary data.

**NIBIB Edward C. Nagy New Investigator Policy**

- 5% payline relaxation for New Investigators
- Only for R01 applications

NIH Exploratory/Developmental Research Grant Award (R21)

- Encourages new, exploratory and developmental research projects by providing support for the early stages of project development. Sometimes used for pilot and feasibility studies.
- Limited to up to two years of funding
- Combined budget for direct costs for the two year project period usually may not exceed $275,000.
- No preliminary data is generally required
- Most ICs utilize
- See parent FOA: [PA-13-303](#)
NIH Small Grant Program (R03)

– Provides limited funding for a short period of time to support a variety of types of projects, including: pilot or feasibility studies, collection of preliminary data, secondary analysis of existing data, small, self-contained research projects, development of new research technology, etc.

– Limited to two years of funding
– Direct costs generally up to $50,000 per year
– Not renewable
– Utilized by more than half of the NIH ICs
– See parent FOA: PA-13-304

NIH Academic Research Enhancement Award (AREA, R15)

– Support small research projects in the biomedical and behavioral sciences conducted by students and faculty in health professional schools and other academic components that have not been major recipients of NIH research grant funds

– Eligibility limited (see http://grants.nih.gov/grants/funding/area.htm)
– Direct cost limited to $300,000 over entire project period
– Project period limited to up to 3 years
– All NIH ICs utilize except FIC an NCMHD
– See parent FOA: PA-13-313
NIH Clinical Trial Planning Grant (R34) Program

– Designed to permit early peer review of the rationale for the proposed clinical trial and support development of essential elements of a clinical trial
– Usually project period of one year, sometimes up to 3
– Usually, a budget of up to $100,000 direct costs, sometimes up to $450,000
– Used only by select ICs; no parent FOA

Ongoing Investments in Innovation

The NIH Common Fund invests millions of dollars to fund new high-risk research to explore ideas that have strong potential to improve health

Transformative R01 Program places the emphasis on creative ideas—projects with the potential to overturn paradigms. Flexible budgets. (79 awards since 2009).

Pioneer Awards support individual scientists of exceptional creativity who propose pioneering approaches to major challenges in biomedical and behavioral research (94 awards since 2004).

New Innovator Program address two important goals: stimulating highly innovative research and supporting promising new investigators (164 awards since 2007).

Early Independence Program supports individuals with the intellect, scientific creativity, drive and maturity to flourish independently without the need for traditional post-doctoral training. (10 awards in 2010).

http://nihroadmap.nih.gov/
NIH Director’s Early Independence Awards (DP5)

Exceptional junior scientists who will obtain their PhD within one year or who have obtained their PhD in the last year

- Skip postdoctoral training
- Directly launch an independent research program
- Highly competitive (10 awards in Fall 2011)


FY 2014 Funding Strategies

- FIC - Fogarty International Center
- NCATS - National Center for Advancing Translational Sciences
- NCCAM - National Center for Complementary and Alternative Medicine
- NCI - National Cancer Institute
- NEI - National Eye Institute
- NHGRI - National Human Genome Research Institute
- NHLBI - National Heart, Lung, and Blood Institute
- NIA - National Institute on Aging
- NIAAA - National Institute on Alcohol Abuse and Alcoholism
- NIAID - National Institute of Allergy and Infectious Diseases
- NIAMS - National Institute of Arthritis and Musculoskeletal and Skin Diseases
- NIBIB - National Institute of Biomedical Imaging and Bioengineering
- NICHD - National Institute of Child Health and Human Development
- NIDA - National Institute on Drug Abuse
- NIDCD - National Institute on Deafness and other Communication Disorders
- NIDCR - National Institute of Dental and Craniofacial Research
- NIDDK - National Institute of Diabetes and Digestive and Kidney Diseases
- NIEHS - National Institute of Environmental Health Sciences
- NIGMS - National Institute of General Medical Sciences
- NIMH - National Institute of Mental Health
- NIMHD - National Institute on Minority Health and Health Disparities
- NINDS - National Institute of Neurological Disorders and Stroke
- NINR - National Institute of Nursing Research
- NLM - National Library of Medicine
Current Submission Rules

• The NIH will accept only a single amendment to an original new or competing renewal application.
• Failure to receive funding after two submissions (i.e., the original and the single amendment) will mean that the applicant should substantially redesign the project rather than simply change the application in response to previous reviews.
• It is expected that this policy will lead to funding high quality applications earlier, with fewer resubmissions.

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What Does NIH Already Support in My Interest Area?


NIH Searchable Databases Contain Abstracts of All Funded Projects

Search by
- MESH terms
- Key words
- Organizations
- States
- Investigators
- Mechanisms
- Solicitations
- Institutes
- ...
Key NIH Contacts for Help

✓ about the scientific and technical aspects of your application...
  ▪ Find them on the solicitation
  ▪ See also the IC’s programmatic descriptions (http://www.nih.gov/icd/index.html).

✓ for questions during the review...
  ▪ Listed on the eRA Commons link to your submitted proposal
  ▪ See also the review group rosters at the CSR web site

✓ for help with the business aspects of a proposal...
  ▪ Listed on the eRA Commons link to your submitted proposal
  ▪ See also the IC’s programmatic descriptions (http://www.nih.gov/icd/index.html).

NIBIB Program Areas

- Biomaterials
- Biomedical Informatics
- Drug and Gene Delivery Systems and Devices
- Image Processing, Visual Perception and Display
- Image-Guided Interventions
- Integration of Implantable Medical Devices
- Interdisciplinary Training and Career Development
- Magnetic Resonance Imaging and Spectroscopy
- Magnetic, Biomagnetic and Bioelectric Devices
- Mathematical Modeling, Simulation and Analysis
- Micro- and Nano- Systems; Platform Technologies
- Micro-Biomechanics
- Molecular Imaging
- Nuclear Medicine
- Optical Imaging and Spectroscopy
- Rehabilitation Engineering
- Sensors
- Structural Biology
- Surgical Tools, Techniques and Systems
- Tissue Engineering
- Ultrasound; Diagnostic and Interventional
- X-ray, Electros, and Ion Beam
- Telehealth
Each NIH Institute/Center has a HOME PAGE

http://www.nibib.nih.gov/

Research Awards Review

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