



National Institute
■ ♦ ★ * on Aging

NIH Funding Mechanisms and the Grant Application Process

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NIH Funding Mechanisms and the Grant Application Process

- What are you asking when you apply for a grant from the NIH?
- Brief History of the NIH
- The Institutes and Centers of the NIH
- The Grant Application Process

A Grant Application to the NIH

- **A request for money to support:**
 - **Research by one laboratory**
 - **Research as part of a team**
 - **Research Center**
 - **Students**
 - **Postdoctoral fellows**
 - **Scientific equipment**
 - **Scientific meetings**

Mission of the NIH

- **The National Institutes of HEALTH**
 - The health and wellbeing of the human population of the United States of America and the world
- **A request for money to support:**
 - Health-related research
 - Basic research
 - Clinical research

NIH Funding Mechanisms and the Grant Application Process

- What are you asking when you apply for a grant from the NIH?
- **Brief History of the NIH**
- The Institutes and Centers of the NIH
- The Grant Application Process

The NIH (Legislation)

- **July 16, 1798** — "An Act for the relief of sick and disabled Seamen" established the Marine Hospital Service for merchant seamen. The Marine Hospital Service — forerunner of the present-day PHS — became a component of the Treasury Department.

The NIH (Legislation)

- **April 29, 1878** — The first Federal Quarantine Act "to prevent the introduction of contagious or infectious diseases into the United States"
- **March 3, 1879** — The National Board of Health was created by law and given quarantine powers; the first organized, comprehensive Federal medical research effort.
- **March 2, 1899** — The Marine Hospital Service was directed by Congress to investigate leprosy in the United States.

The NIH (Legislation)

- **March 3, 1901** — An appropriation of \$35,000 was made for the Hygienic Laboratory building (first legislative mention of Hygienic Laboratory). Thus "investigations of contagious and infectious diseases and matters pertaining to public health" were given definite status in law.
- **July 1, 1902** — A bill to increase the efficiency and change the name of the Marine Hospital Service to Public Health and Marine Hospital Service was enacted. The law ... designated a bureau of the Federal Government as an agency in which public health matters could be coordinated.

The NIH (Legislation)

- **August 14, 1912** — The name Public Health and Marine Hospital Service was changed to Public Health Service. The legislation broadened the PHS research program to include "diseases of man" and contributing factors such as pollution of navigable streams, and information dissemination.
- **May 26, 1930** — The Ransdell Act reorganized, expanded, and re-designated the Hygienic Laboratory as the National Institute of Health. The act authorized \$750,000 for the construction of two buildings for NIH and authorized a system of fellowships.

The NIH (Legislation)

- **August 5, 1937** — A law established the National Cancer Institute to conduct and support research relating to the cause, diagnosis, and treatment of cancer. The law authorized the Surgeon General to make grants-in-aid for research in the field of cancer, provide fellowships, train personnel, and assist the states in their efforts toward cancer prevention and control.

The NIH (Legislation)

- **July 3, 1946** — The National Mental Health Act was designed to improve the mental health of U.S. citizens through research into the causes, diagnosis, and treatment of psychiatric disorders. It authorized the Surgeon General to support research, training, and assistance to state mental health programs. (P.L. 79-487, 60 Stat. L. 421.) (The National Institute of Mental Health was established under the authority of this law on April 15, 1949.)

The NIH (Legislation)

- **June 16, 1948** — The National Heart Act authorized the National Heart Institute to conduct, assist, and foster research; provide training; and assist the states in the prevention, diagnosis, and treatment of heart diseases. In addition, the act changed the name of National *Institute* of Health to National *Institutes* of Health.
- **June 24, 1948** — The National Dental Research Act authorized the National Institute of Dental Research to conduct, assist, and foster dental research; provide training; and cooperate with the states in the prevention and control of dental diseases.

The NIH (Legislation)

- **August 3, 1956** — An amendment to Title III of the PHS act, the National Library of Medicine Act, placed the Armed Forces Medical Library under the PHS, and renamed it the National Library of Medicine.

The NIH (Legislation)

- **September 15, 1960** — A law amended the PHS act to authorize grants-in-aid to universities, hospitals, laboratories, and other public and nonprofit institutions to strengthen their programs of research and research training in the sciences related to health. The act also authorized ... general research support grants.
- **October 17, 1962** — An act authorized the Surgeon General to establish the National Institute of General Medical Sciences and the National Institute of Child Health and Human Development.

The NIH (Legislation)

- **October 30, 1970** — The PHS act was amended to provide: 1) extension of research contract authority in areas of public health through June 30, 1974; 2) authorization of mission-related clinical training (as well as research training) by the NIGMS; 3) clarification of terms in the regulation of biological products; 4) clarifying and technical directives relating to appointment, compensation and functions of advisory councils and committees, and 5) extension of statutory authority for regional medical programs, comprehensive medical planning, and health services research and development.

The NIH (Legislation)

- **November 29, 1987** — The Older Americans Act Amendments, Title III — Alzheimer's Disease Research, also authorized the President to call a White House Conference on Aging in 1991.
- **December 22, 1987** -- provided \$6.667 billion to NIH, including \$448 million to be allocated among the institutes for AIDS.
- **August 5, 1997** — The Balanced Budget Act authorized a \$150 million increase for research on the prevention and care of type-1 diabetes.

The NIH

(Legislation leading to electronic submission)

- **May 22, 1995** — The Paperwork Reduction Act of 1995 amends the U.S. Code to reduce by 5 percent the Federal paperwork burdens imposed on individuals, small businesses, state and local governments, education and nonprofit institutions and Federal contractors; also had the effect of establishing in statute the NIH Office of Information Resources Management.
- **November 20, 1999** — Federal Financial Assistance Management Improvement Act of 1999 required agencies to develop plans to streamline grant administration activities. OMB was directed to 1) develop a common application, or set of common applications, for applying for Federal assistance; 2) develop a common system, including **electronic processes**, for grant administration activities; and 3) develop uniform administrative rules for Federal financial assistance programs across different agencies.

The NIH

(Legislation - Summary)

- **Legislation established the NIH to serve the public health**
 - **Research using NIH funds should improve the public health directly or through expanding knowledge of life sciences (the connection should be clear)**
- **Institutes and centers were (mostly) established by legislation**
 - **Each institute can set its priorities for research**
- **Cures for specific diseases were also the subjects of legislation**
 - **Many institutes may have interests in a specific disease**

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- What are you asking when you apply for a grant from the NIH?
- Brief History of the NIH
- **The Institutes and Centers of the NIH**
 - An Institute has the administrative structures for independent operation: extramural program, grant review, grants management, intramural program. A Center differs in one or more of these structures, often by not having that structure.
- The Grant Application Process

Internet Access to the NIH

The screenshot shows a web browser window displaying the NIH website. The browser's address bar shows the URL <http://www.nih.gov/>. The website header includes the NIH logo and the text "U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES National Institutes of Health". A navigation menu contains links for Home, Health, Grants, News, Research, Institutes, and About NIH. A search box is located in the top right corner.

In the News

- Autism Discovery**

[Gene linked to autism in families with more than one affected child](#)
- New AMD Study**

[Effect of antioxidants and fish oil on age-related macular degeneration](#)

[More Press Releases](#)
[eColumn: NIH Research Matters](#)

Medical Research Issues

- [Genetic Information Repository](#)
- [Research Results for the Public](#)
- [NIH Roadmap](#)
- [Office of Portfolio Analysis and Strategic Initiatives](#)
- [Stem Cell Information](#)

Health Information
A-Z index of NIH health resources, clinical trials, MedlinePlus, health hotlines

Grants & Funding Opportunities
Grants news, applications, grants policy, NIH Guide, award data, eRA Commons, research training, research contracts, loan repayment programs, Small Business Research Programs

News & Events
News releases, press room, RSS, Podcasts, calendars, radio & video, media contacts, *News in Health* newsletter, *NIH Research Matters* eColumn

Research Training & Scientific Resources at NIH
Intramural research, Human Embryonic Stem Cell Registry, scientific interest groups, library catalogs, journals, training, labs, scientific computing

Institutes, Centers & Offices
The individual organizations that make up the NIH

About NIH
Visitor info, employee directory, jobs, science education, mission, Director's Page, public involvement, research planning, organization, budget, history, doing business with

Q&A About NIH


Jobs at NIH


Visitor Information


Employee Information
Información en español

Featured this week

The Sister Study:
Discovering the Causes of Breast Cancer


NIH Radio

Now Podcasting

NIH – 20 Institutes

- **National Cancer Institute (NCI)**
- **National Eye Institute (NEI)**
- **National Heart, Lung, and Blood Institute (NHLBI)**
- **National Human Genome Research Institute (NHGRI)**
- **National Institute on Aging (NIA)**
- **National Institute on Alcohol Abuse and Alcoholism (NIAAA)**
- **National Institute of Allergy and Infectious Diseases (NIAID)**
- **National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)**
- **National Institute of Biomedical Imaging and Bioengineering (NIBIB)**
- **National Institute of Child Health and Human Development (NICHD)**
- **National Institute on Deafness and Other Communication Disorders (NIDCD)**
- **National Institute of Dental and Craniofacial Research (NIDCR)**
- **National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)**
- **National Institute on Drug Abuse (NIDA)**
- **National Institute of Environmental Health Sciences (NIEHS)**
- **National Institute of General Medical Sciences (NIGMS)**
- **National Institute of Mental Health (NIMH)**
- **National Institute of Neurological Disorders and Stroke (NINDS)**
- **National Institute of Nursing Research (NINR)**
- **National Library of Medicine (NLM)**

NIH – 7 Centers

- **Center for Information Technology (CIT)**
- **Center for Scientific Review (CSR)**
- **John E. Fogarty International Center (FIC)**
- **National Center for Complementary and Alternative Medicine (NCCAM)**
- **National Center on Minority Health and Health Disparities (NCMHD)**
- **National Center for Research Resources (NCRR)**
- **NIH Clinical Center (CC)**

NIH – 20 Institutes

- **Each institute has its own website**
 - **Information on areas of interest**
 - **RFA**
 - **PA**
- **Funding policies (business practices)**
 - **Most but not all funding mechanisms**
 - **Approximately uniform receipt and start dates**
 - **Internal review procedures**
 - **Different “paylines”**
 - **Different institutional budget policies**
 - **Different scientific & medical interests**

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- Brief History of the NIH
- The Institutes and Centers of the NIH
- **The Grant Application Process**
 - **Types of grants (funding mechanisms)**
 - Key features of the application

Extramural Grants

NATIONAL INSTITUTES OF HEALTH
Office of Extramural Research
National Institutes of Health, Office of Extramural Research
- link to home page

Search Entire Site
Active Funding Opportunities
Search

NIH Research Training & Research Career Opportunities

Home Page

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- Funding Opportunities
- Applications & Forms
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- About OER

Research Training & Research Career Opportunities offered by the National Institutes of Health (NIH)

- **Extramural (Outside of NIH)** - Learn about NIH-supported pre-doctoral and postdoctoral training opportunities at universities and other institutions across the country (extramural.) Here you will find information on a variety of training grants, fellowships, and loan repayment programs.
- **Intramural (Within NIH)** - Visit this web site to learn about research and training opportunities at the NIH (intramural) ranging from summer programs for high school students through employment for postdoctoral scientists.
- **News** - Our News page offers the latest information about changes that may affect our training programs.
- **Career Resources** - The Career Resources page provides help in writing applications, interviewing, and career planning. Included are links to Postdoctoral Scholars Associations.
- **Q&A** - Answers to questions can be found on our Q & A page.
- Use the e-mail links below to send us your comments and suggestions.

Intramural
[Joan P. Schwartz, Ph.D.](#)
Acting Deputy Director for Office
of Intramural Training and Education

Extramural
[Peter Preusch, Ph.D.](#)
NIH Research Training Officer

http://grants.nih.gov/grants/oer.htm Internet

An Extramural Grant Application to the NIH

- **A request for money to support:**
 - **Research by one laboratory**
 - (R01, R03, R21) (K01, K08, K23, K25 ...)
 - **Research as part of a team**
 - P01
 - **Research Center**
 - P20, P50 ...
 - **Students**
 - Ts and Fs
 - **Postdoctoral fellows**
 - Fs
 - **Scientific equipment**
 - S01
 - **Scientific meetings**
 - R13

Research Projects

R 01 Research Project

- To support a discrete project by a principal investigator in an area representing her/his specific interest and competencies.
 - Typically \$150,000 to \$499,999 annual direct costs.
 - > 3,600 new awards, > 2,000 competing, >10,000 continuing in FY2006

• R 03 Small Research Grants

- Support specifically limited in time and amount for initiating studies which are generally for preliminary short-term projects and are non-renewable.
 - Typically \$50,000 annual direct costs for 2 yrs.
 - >640 new, > 780 continuing in FY2006

Research Projects

- **R 21 Exploratory/Developmental Grants**
 - To encourage the development of new research activities in categorical program areas.
 - Support generally is restricted in level of support and in time
 - 2 years, \$275,000 total direct costs
 - > 1,500 new awards in FY2006
- **R 33 Exploratory/Developmental Grants Phase II**
 - The R33 award is to provide a second phase for the support for innovative exploratory and development research activities initiated under the R21 mechanism. Specific program initiatives may establish eligibility criteria under which R33 applications could be accepted.
 - 3 years
 - Variable direct costs

Research Projects

- **R 15 Academic Research Enhancement Awards (AREA)**
 - To support small scale research projects conducted by faculty in primarily baccalaureate degree-granting domestic institutions.
 - Awards are for up to \$75,000 for direct costs (plus applicable indirect costs) for periods not to exceed 36 months.
 - > 150 awards in FY2006

Program Projects

- **P 01 Research Program Projects**
 - A program project is directed toward a range of problems (sub-projects) having a central research focus. Each sub-project must have independent scientific merit, and the combined sub-projects should demonstrate an essential element of unity and interdependence, i.e., a system of research activities and projects directed toward a well-defined research program goal.
 - The awards are usually “limited” to 0.5 – 1.5 million dollars (avg \$1.25 M direct and \$1.7M total costs in FY 2006 for 51 new awards)



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 Active Funding Opportunities
Search

NIH Research Training & Research Career Opportunities

Extramural Training Mechanisms

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- About OER

- **Ruth L. Kirschstein National Research Service Awards (NRSA) Training Grants and Fellowships**
 - [Institutional Research Training Grants](#)
 - [Individual Fellowships](#)
 - [Kirschstein - NRSA Policy Issues](#)
 - [Training for a New Interdisciplinary Research Workforce \(T90\)](#)
- **Career Development Awards**
 - [K Kiosk - NIH Career Development Awards](#)
 - [Career Award Wizard](#)
 - [Determining Full-Time Professional Effort for Career Awards](#), August 3, 2004
 - [New Policy on Mentored Career Development Award Salaries: Change In NIH Policy Concerning Concurrent Support From Career Development Award And A Research Grant](#), November 14, 2003
- **Extramural Loan Repayment Programs** (The next Extramural Application Cycle will open on September 1, 2006)
 - [Home Page - NIH Loan Repayment Programs](#)
 - [Loan Repayment Program for Clinical Research](#)
 - [Loan Repayment Program for Pediatric Research](#)

Research Career Programs

- **K 01 Research Scientist Development Award - Research & Training**
 - For support of a scientist, committed to research, in need of both advanced research training and additional experience.
 - > 800 FY2006
- **K 02 Research Scientist Development Award - Research**
 - For support of a scientist, committed to research, in need of additional experience.
 - > 220 FY2006

Research Career Programs

- **K 08 Clinical Investigator Award (CIA)**
 - To provide the opportunity for promising medical scientists with demonstrated aptitude to develop into independent investigators
 - > 1200 in FY2006
- **K 23 Mentored Patient-Oriented Research Career Development Award**
 - Support for the career development in patient-oriented research, for a 3 year minimum up to 5 year period of supervised study and research for clinically trained professionals with potential to develop into clinical investigators.
 - numerous institutes, about 1000 ongoing

Research Career Programs

- **K 18 The Career Enhancement Award**
 - Supports full-time or part-time training in the use of human or animal embryonic, adult, or cord blood stem full or part-time.
 - **NIDDK, NIAAA, NIAID and NHLBI participate.**
 - **for 05 to 2 yrs; DK, HL – 3 in 2006**
- **K 22 Career Transition Award**
 - Support to for a two phase program; an initial period involving and intramural appointment at the NIH and a final period of support at an extramural institution. The award is intended to establish a record of independent research by the investigator in order to sustain or promote a successful research career.
 - **numerous institutes about 150 ongoing**

New K-Award

- **K99/R00 NIH Pathway to Independence (PI) Award**
 - The NIH Pathway to Independence Award provides an opportunity for promising postdoctoral scientists to receive both mentored and independent research support from the same award. The initial phase will provide 1-2 years of mentored support followed by up to 3 years of independent support contingent on securing an independent research position.
 - The total cost per year for the mentored phase is up to \$90,000. The total cost per year of the independent investigator phase is up to \$249,000.
 - Limited number from NIH, divided among different institutes

Research Career Programs

- **K 14 Minority School Faculty Development Awards**
 - To encourage the development of faculty investigators at minority schools and to enhance their research capabilities in specified health and health related areas.
 - 1 at GM in FY2006

Kirschstein Awards

Students and Postdoctoral Fellows

- F30 – Predoctoral Fellowship (MD/PhD)
 - 52 new awards in FY2006
- F31 –Predoctoral Fellowship (Diversity)
 - 500 new awards in FY2006
- F32 – Postdoctoral Fellowship
 - >700 new awards in FY2006
- F33 - to support sabbatical experiences for established independent scientists
 - 7 new awards in FY2006

Research Resource Grants

- **S 06 Minority Biomedical Research Support - MBRS**
 - To strengthen the biomedical research and research training capability of ethnic minority institutions, and thus establish a more favorable milieu for increasing the involvement of minority faculty and students in biomedical research.
- **S 10 Biomedical Research Support Shared Instrumentation Grants (NCRR)**
 - To make available to institutions with a high concentration of NIH extramural research awards, research instruments which will be used on a shared basis.
- **S 11 Minority Biomedical Research Support Thematic Project Grants**
 - To promote increased faculty and interdepartmental collaboration through programs that focus on specific research themes or scientific disciplines at developing minority institutions. These grants are intended to strengthen the biomedical research capability in defined areas and to attract other competent biomedical scientists through an improved research environment.

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- Brief History of the NIH
- The Institutes and Centers of the NIH
- **The Grant Application Process**
 - Types of grants (funding mechanisms)
 - **Key features of the application**

The Application Process

- **You and your institution register with the NIH**
- **Funding Opportunity Announcement (FOA)**
- **Get the forms**
 - Use the FOA to download the correct forms
- **Write the grant**
 - Identify the people, place and project
 - The Principal Investigator and Key Personnel
 - The Institution (it will be the institution's grant)
 - The science, authorizations & budget (\$\$\$ and yrs)
- **Submit the grant**
 - Paper until mar 2007 for R01
 - Electronic for most mechanisms

Funding Opportunity Announcement (FOA)

- A publicly available document by which a Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds.
- Funding opportunity announcements may be known as program announcements, requests for applications, notices of funding availability, etc.
- Funding opportunity announcements can be found at **Grants.gov/FIND** and in the **NIH Guide for Grants and Contracts**. In addition, NIH and other HHS Agencies have developed omnibus Parent Announcements for common grant mechanisms for use by applicants who wish to submit what were formerly termed “unsolicited” or “investigator-initiated” applications.

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Active Funding Opportunities
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Grants - OER Home Page

NIH Medical & Behavioral Research Grant Policies, Guidelines & Funding Opportunities

Funding Opportunities

- Funding Opportunities (RFAs, PAs) and Notices, as published in the NIH Guide for Grants and Contracts:
New Announcements This Week
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Parent Announcements (unsolicited applications) NEW
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Submitting Your Grant Application
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Grants Policy

- Grants Policy and Guidance
Grants Compliance and Oversight
Extramural Financial Operations
Laboratory Animal Welfare (OLAW)
OER Human Subjects Web Site
HHS Office for Human Research Protections (OHRP)
Genome-Wide Association Studies (GWAS) NEW
Intellectual Property
Peer Review

Electronic Research Administration (eRA)

- Electronic Submission of Grant Applications
eRA Home Page
NIH eRA Commons
iEdison: Invention Reporting
Knowledge Management Events
Open Letter to Members of the NIH Community of Peer Reviewers (PDF)

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The **NIH Guide for Grants and Contracts** is the official publication for NIH medical and behavioral research grant policies, guidelines and funding opportunities. [Definitions and More Information...](#)

Search For Exact Keyword(s) or Phrase(s):

- Active Funding Opportunities Only (RFAs & PAs)
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Search Hints:

- Search by number (e.g. RFA-HL-05-018 or PA-05-058) [Search Help](#)
- Search by title or keyword
- Search matches exact keyword or phrase - Leave blank to display all records
- Separate Multiple Search Terms with comma (e.g. diabetes, liver disease, kidney disease)
- Search for **Active and Inactive** Announcements using [Advanced Search](#)

Browse Active Funding Opportunities

- [Requests for Applications \(RFAs\)](#)
- [Program Announcements \(PAs\)](#)
- [Parent Announcements](#) **NEW** (unsolicited applications)

Browse Recent Policies and Guidelines

- [Notices](#) (Released in last 12 months)

Weekly Issue of the NIH Guide for Grants and Contracts

- [New Announcements This Week](#) - Current Weekly Table of Contents (TOC)

• TOC by Year and Week: [2006](#) [2005](#) [2004](#) [2003](#) [2002](#) [2001](#) [Historical](#)

Requests for Applications (RFA)

- Identifies a more narrowly defined area for which one or more NIH institutes have set aside funds for awarding grants
- Usually has a single receipt (received on or before) date specified in the RFA announcement
- Usually reviewed by a Scientific Review Group convened by the issuing awarding component

Program Announcements (PA, PAS, PAR)

- Identifies areas of increased priority and/or emphasis on particular funding mechanisms for a specific area of science
 - **MANY FOUND ON AN INSTITUTE'S WEBSITE**
- Usually accepted on standard receipt dates on an on-going basis
- Remains active for three years from date of release unless the announcement indicates a specific expiration date or the NIH Institute/Center (I/C) inactivates sooner
- Special Types
 - **PAR**: A PA with special receipt, referral and/or review considerations, as described in the PAR announcement
 - **PAS**: A PA that includes specific set-aside funds as described in the PAS announcement

The Application Process

- **Funding Opportunity Announcement (FOA)**
- **Get the forms**
 - Use the FOA to download the correct forms
- **Write the grant**
 - Identify the people, place and project
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HHS Office for Human Research Protections (OHRP)
Genome-Wide Association Studies (GWAS) NEW
Intellectual Property
Peer Review

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- Notices:** [NEW: Delays in Grant Application Submission due to Earthquake in Hawaii](#) - 10/18/2006
[NEW: Parent Announcements \(For Former Unsolicited or Investigator-Initiated Applications\)](#) - 10/10/2006
[NEW: Change in Standing Receipt Dates for NIH/AHRQ/NIOSH Beginning in January 2007](#) - 10/05/2006
[NEW: NIH and AHRQ Publish Edits to the Ruth L. Kirschstein Individual Fellowship Application \(PHS 416-1\) Instructions](#) - 10/05/2006
[Delays in Grant Application Submission due to Hurricane Ernesto](#) - 08/29/2006
[Requirement for Detailed \(Non-Modular\) Budget Submissions for All Competing Grant Applications from Foreign Institutions](#) - 08/23/2006
[NIH Policy on Late Submission of Grant Applications](#) - 08/11/2006
[Request for Information \(RFI\): Proposed Change in Grant Appendix Materials](#) - 08/2/2006
[SF424\(R&R\) Senior/Key Person Profile Form Issue – Workaround for Adding More Than Eight Senior/Key Persons](#) - 07/27/2006
[NIH/AHRQ to Update/Post FOAs with New SF424 \(R&R\) and PHS 398 Electronic Forms](#) - 06/22/2006
[R03, R21, R21/R33, R33 and R34 Use of SF424 \(R&R\) for the 6/1/06 Submission Dates and Beyond](#) - 05/04/2006
[Replacing PI Signature with Institutional Compliance Requirement](#) - 04/07/2006
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Research Grants		
Forms / Applications / Instructions	Revision Dates	Description / Comments
SF424 (R&R)	07/2006	Standard Form 424 (Research & Related) Grant Application Forms See Electronic Submission Page and Related NIH Guide Notices .
PHS 398	04/2006	Competing - Public Health Service Grant Application <i>Apply for: Research Grants, Career Awards (K Series), Institutional NRSA (Training) grants.</i> Applicants Preparing Applications for Submission/receipt Dates On/After May 10, 2006: Use instructions with the Interim Revision 04/2006 date. Some form pages have also been revised and now show a (Rev. 04/06) date. Other form and format pages remain unchanged, and show a (Rev. 09/04, Reissued 4/2006) date. Applicants should use the forms provided in the 4/2006 Revision set which will include a mix of forms with the 4/06 and 9/04 revision dates. For form and format pages showing the 'Rev. 9/04, Reissued 4/2006' reference, no data fields on these have actually changed; therefore, applicants may continue to use existing Rev. 9/04 versions, even if they do not include the "Reissued 4/2006" reference.

Parent Announcements (For Former Unsolicited or Investigator-Initiated Applications)

NIH and other agencies serviced by [eRA Commons](#) still want your investigator-initiated applications. Electronic grant applications must be submitted in response to a [Funding Opportunity Announcement](#)*. We have developed Parent announcements for use by applicants who wish to submit what were formerly termed investigator-initiated or 'unsolicited' applications. Apply using the electronic application package for your chosen mechanism, listed in the table below. Read [More About Parent Announcements](#).

The following Parent Announcements are available (sorted by Activity Code):

Activity Code(s)	Title	Announcement Number	Issuing Organization	Release Date	Opening Date (SF424 Only) ?	Expiration Date
R03	NIH Small Research Grant Program (Parent R03)	PA-06-180	NIH	03/02/2006	05/02/2006	05/02/2009
R13 , U13	NIH Support for Conferences and Scientific Meetings (Parent R13/U13)	PA-06-041	NIH	10/26/2005	11/21/2005	09/02/2008
R15	Academic Research Enhancement Award (Parent R15)	PA-06-042	NIH	10/26/2005	01/17/2006	01/03/2009
R21	NIH Exploratory/Developmental Research Grant Program (Parent R21)	PA-06-181	NIH	03/02/2006	05/02/2006	05/02/2009
R41 , R42	PHS 2006-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42])	PA-06-121	NIH	01/20/2006	03/01/2006	01/03/2007
R43 , R44	PHS 2006-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44])	PA-06-120	NIH	01/20/2006	03/01/2006	01/03/2007

Additional Tips for Identifying Opportunities

- Applicants may also want to search [CRISP](#) (Computer Retrieval of Information on Scientific Projects) to find out if projects in their area have been funded by NIH and what NIH Institutes and Centers have shown an interest in their area in the past. This may help narrow their search for a suitable opportunity. CRISP is a biomedical database system containing information on research projects and programs supported by the Department of Health and Human Services.
- Don't be afraid to [contact staff at NIH Institutes/Centers](#) to discuss your application.

Helpful Links

- For information on grants and grants policy: <http://grants.nih.gov/grants/oer.htm>
- For information on types of grant programs: http://grants.nih.gov/grants/funding/funding_program.htm

The Application Process

- **Funding Opportunity Announcement (FOA)**
- **Get the forms**
 - Use the FOA to download the correct forms
- **Write the grant**
 - Identify the people, place and project
 - The Principal Investigator and Key Personnel
 - The Institution (it will be the institution's grant)
 - The science, authorizations & budget (\$\$\$ and yrs)
- **Submit the grant**
 - Paper until mar 2007 for R01
 - Electronic for most mechanisms

The Application Process

- **Write the grant**

- Identify the people, place and project

- People: The Principal Investigator and Key Personnel

- You need to have scientific expertise or friends with complementary scientific expertise

- Expertise is established by publications

- Place: The Institution (it will be the institution's grant)

- The institution has a commitment to the PI, the research

- Meaning there are adequate resources for the work.

- Project: The science, authorizations & budget (\$\$\$ and yrs)

- Significance (important health or basic research problem)

- Specific aims

- IACUC or IRB approvals

- A budget reasonable for the project

The Application Process

- **Write the grant**
 - Get some help and someone to read the proposal
 - You need time to develop your ideas and write them, and revise them, and rewrite them.
 - You need to have your proposal read and critiqued before you submit it.

The Application Process

- **Write the grant**

- Write Clearly

- The title of the proposal IS important.
 - The abstract IS important.
 - These affect the assignment of your proposal to an institute and a review panel.
 - The Specific Aims are extremely important
 - Three aims are good for an R01

The Application Process

- **Write the grant**
 - Write Clearly
 - The SIGNIFICANCE of your proposal is important so tell the reviewer exactly the significance in **one** sentence.
 - Significance is a key criterion in the review process
 - Significance for health or for understanding a basic biological process (e.g., cell cycle).
 - The field will move forward because of your research
 - So you need to have some idea of where to go next (which is good to have in the summary at the end of your proposal)

The Application Process

- **Write the grant**
 - Write Clearly
 - The Background and Significance section should describe the current state of knowledge in your area of proposed research
 - It should be written to guide the reviewer to agree that the problem you are addressing in the proposal emerges directly from this literature
 - We know this but not that, and “that” is what will be studied here.
 - “That” is important because it is key to the mechanism underlying disease

The Application Process

- **Write the grant**
 - Write Clearly
 - The Preliminary Results are vital
 - These show that you have the model/samples and the reagents
 - These show that you can test your hypotheses
 - These show the typical quality of your results
 - Don't even think of using the phrase "data not shown"
 - This is a proposal not a manuscript for publication

The Application Process

- **Write the grant**
 - Write Clearly
 - The Experimental Procedures must be concise
 - Name important model organisms or specimens
 - Do NOT get into buffer composition
 - Identify the critical reagents and have them in hand
 - Describe protocols with enough detail so the reviewer knows that you know the protocol
 - Don't refer to published work for the protocol, put it in the proposal

The Application Process

- **Write the grant**
 - Write Clearly
 - The Experimental Procedures must be concise
 - Give real alternatives for “pitfalls”
 - This means “the data do not support the hypothesis, so we would test the alternative hypothesis that X functions in place of Y, using antibodies or RNAi or whatever specific against X.
 - The alternative had better be reasonable
 - Avoid “straw man” alternatives – they won’t fool anyone
 - Do NOT claim that you never have problems with the procedures to be used – why aren’t your experiments 100% successful (as are everyone else’s)?

The Application Process

- **Write the grant**
 - Write Clearly
 - Identify the important equipment
 - If you are going to do quantitative PCR you had better have the instrument
 - Justify your budget
 - Who will do what in the project?
 - Each should be qualified or it is your role in the project to provide the training

The Application Process

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- **Submit the grant**
 - Paper until mar 2007 for R01
 - Electronic for most mechanisms

The Application Process

- **Submit the grant**
 - **Cover letter**
 - **Important two sentences to ask for assignment to an institute and to a study section (review panel)**
 - **Allow time for corrections on the electronically submitted forms.**
 - **Don't schedule a vacation around grant submission deadlines.**



News and Reports

- Delays in Application Submission Due to Earthquake in Hawaii
- New Receipt Dates Begin January 2007
- Fellowship Notices: Registering for eRA Commons and Revised Instructions for Individual Fellowships
- Fall Issue of Peer Review Notes Newsletter Now Online
- NIH Policy on Late Submission of Grant Applications
- Streamlined Review Process for National Research Service Awards Postdoctoral Fellowship Applications (F32)
- More...

Peer Review Meetings

- Meeting Dates
- Review Group Descriptions
- Study Section Rosters
- Peer Review Guidelines
- Selection of Reviewers
- More...

Resources for Applicants

- New Electronic Applications
- Funding Opportunities & Forms
- Submission And Assignment Process
- NIH Grant Review Process Video
- Advice to Investigators Submitting Clinical Research Applications*
- More...

About CSR

- Welcome to CSR
- CSR Organization
- "The Peer Review Process"
- Meet CSR Staff
- Employment
- More...



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Getting to CSR

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Advancing health through peer review

HOME CONTACT CSR STAFF DIRECTORY

SEARCH + Enter keyword(s) GO

Home > Peer Review Meetings > Review Group Descriptions > CB - Cell Biology

Scientific Areas of Integrated Review Groups (IRGs)

For a listing of the Scientific Review Administrator and membership roster for each study section, click on the study section roster under the study section name within an IRG listed below or go to the [study section index](#) (study sections listed alphabetically) and click on the specified roster next to the name of the study section.

Cell Biology IRG [CB]

Last updated February 9, 2006

[Printer Friendly \(Complete IRG\)](#)

[PRINTER FRIENDLY](#)

The Cell Biology [CB] IRG will review research applications that focus broadly on the study of fundamental cell biological processes, including the functions, interactions and regulation of cells and cellular organelles. This IRG will review applications that involve a variety of disciplines including biochemistry, biophysics, chemistry, and genetics, and use a variety of techniques including microscopy, genomics, proteomics and computational techniques, with the primary goal of better understanding cell functions. In addition, the Biology and Diseases of the Posterior Eye [BDPE] study

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proteomics and computational techniques, with the primary goal of better understanding cell functions. In addition, the Biology and Diseases of the Posterior Eye [BDPE] study section is in the CB IRG.

Topics to be covered include cell growth, proliferation, and cell cycle control; nuclear architecture and transport; RNA trafficking and localization; post-translational modifications, protein processing, glycosylation and folding; membrane structure and function; lipid traffic and metabolism; cell asymmetry and polarity; ion transport and regulation, channels, transporters and junctions; organelle biogenesis, function, dynamics and protein translocation; the secretory pathway, endocytosis, exocytosis and phagocytosis; degradative processes; cell adhesion, junctions and cell: cell fusion; extracellular matrix and ECM receptors; signaling mechanisms and networks; integrative cell physiology including circadian clocks, stress and oxidative damage response; motors, filaments and cargoes; cell locomotion; mitosis and meiosis; programmed cell death and apoptosis; multi-cellular interactions and development including higher order complexity in tissues; cell differentiation and oncogenic transformation; and the development of new methodologies including advances in imaging and biosensors.

The following study sections are included within the CB IRG:

- Cellular Signaling and Dynamics Study Section [CSD]
- Nuclear Dynamics and Transport Study Section [NDT]
- Intercellular Interactions Study Section [ICI]
- Cell Structure and Function Study Section [CSF]

Cellular Signaling and Dynamics Study Section [CSD]

[CSD Roster]

The Cellular Signaling and Dynamics Study Section will review applications that focus on the initiation and execution of programs that control cellular homeostasis and physiology. A distinguishing characteristic of these applications is an emphasis on signaling networks and the coordination of processes that have cell-wide consequences.

Specific areas include, but are not limited to CSD:

- Integrative cell physiology (e.g., stress, metabolism, clocks, cellular modeling)
- Mitosis and meiosis as related to cell cycle regulation
- Cell differentiation and transformation
- Cell size and mass, asymmetry and polarity
- Control of proliferation and senescence
- Programmed cell death and apoptosis especially in the context of stress, growth and transformation
- Proteolytic mechanisms associated with cell cycle, senescence and death
- Computational modeling of signal transduction

PRINTER FRIENDLY

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CB - Cell Biology

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- [Cell Structure and Function Study Section \[CSF\]](#)
- [Membrane Biology and Protein Processing Study Section \[MBPP\]](#)
- [Cell Biology Small Business Activities \[SBIR/STTR\] Special Emphasis Panel \[CB Small Business SEP\]](#)
- [Biology and Diseases of the Posterior Eye \[BDPE\]](#)
- [Cell Biology and Development Fellowship Study Section \[F05\]](#)
- [Cell Biology IRG \[CB\]](#)

People you should know

- These are identified when your grant is assigned
- Your Program Officer
 - You could contact a person in an institute
- Your Scientific Review Administrator
 - Only contact these people when you know your grant's assignment
 - Do you want to submit supplemental material?
 - Do you have concerns about one or two reviewers on the panel?
 - Are you worried it is the right panel to review your grant?

The Application Process

- You and your institution register with the NIH
- Funding Opportunity Announcement (FOA)
- Get the forms
- Write the grant
- Submit the grant
- Do some research while waiting for the review