Basic scientific research is scientific capital...

How do we increase this scientific capital? First, we must have plenty of men and women trained in science, for upon them depends both the creation of new knowledge and its application to practical purposes. Second, **we must strengthen the centers of basic research which are principally the colleges, universities, and research institutes.** These institutions provide the environment which is most conducive to the creation of new scientific knowledge...

It is only the colleges, universities, and a few research institutes that devote most of their research efforts to expanding the frontiers of knowledge...

The most important ways in which the Government can promote industrial research are to increase the flow of new scientific knowledge through support of basic research, and to aid in the development of scientific talent.

**Vannevar Bush**  
Cover-letter, Report to the President  
July 25, 1945
NIH Funding can be used for:

**SALARIES** and associated Employee Benefits for PI, scientific staff, students

**EQUIPMENT**  Don’t be shy about asking! Science infrastructure is built on individual research projects. (Equipment = $5,000 or greater per unit).

**TRAVEL** to professional meetings, research sites, etc.

**MATERIALS/SUPPLIES**

**CONSULTANTS** -- but NOT Departmental colleagues!

**SUBCONTRACTS / SUBGRANTS**

**TECHNICAL SERVICES**

and more...
## Sample AREA Costs

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI's annual salary</td>
<td>$82,000</td>
</tr>
<tr>
<td>2 mo summer salary</td>
<td>$16,400</td>
</tr>
<tr>
<td>Associated employee benefits @ 15%</td>
<td>$2,460</td>
</tr>
<tr>
<td>Total</td>
<td>$18,860</td>
</tr>
<tr>
<td>Student salaries @ $15/hr</td>
<td>$3,510</td>
</tr>
<tr>
<td>9 hrs per week x 26 weeks</td>
<td></td>
</tr>
<tr>
<td>20 hr per week during summer</td>
<td>$2,400</td>
</tr>
<tr>
<td>Associated employee benefits @ 5%</td>
<td>$296</td>
</tr>
<tr>
<td>Total</td>
<td>$6,206</td>
</tr>
<tr>
<td>Total for 1.5 students</td>
<td>$25,066</td>
</tr>
</tbody>
</table>

Leaving another $70,000 - $75,000 per year for three years for Other Than Personnel Costs (OTP)
Preparing an NIH Grant Application

Requires some familiarity with

- SF 424 forms
- PHS 398 procedures
- PHS Policy Manual
- Online tools (Grants.gov & eRA-Commons)
- FOA (PA, RFA)
- NIH-specific review process

Use/consult with ORSP
Electronic Proposal Submission

Requires use of 2 online tools when submitting to the NIH
Two possible geneses:

- Funding Opportunity Announcement (FOA)
  NIH Guide for Grants & Contracts
- Investigator-initiated proposal
  No specific program requirements, however, the proposed research plan must be related to the stated program interests of one or more of the Institutes based on published descriptions of their programs.  
  Note: Cover-letter.

Application due dates:
- February 5
- June 5
- October 5
### Investigator-initiated R01 Applications

**R01s are most often investigator-initiated** in response to:

- a Program Announcement highlighting particular scientific areas
- Requests for Applications (RFAs)
**Investigator-initiated R01 Applications**

| R01          | • no mandated cap on costs, however, applicants requesting $500,000 or more in any one year must contact agency official in advance  
|              | • Up to five-years support may be requested  
|              | • R01s do not require cost sharing  
|              | • FOAs designed for R01s may inspire topics for AREA and SCORE apps |
**SEARCH GRANTS**

**BASIC SEARCH CRITERIA:**
- **Keyword(s):** NIH
- **Funding Opportunity Number:**
- **CFDA:**

**OPPORTUNITY STATUS:**
- Posted (165)
- Closed (35)
- Archived (2,444)

### 1 - 25 OF 165 MATCHING RESULTS:

<table>
<thead>
<tr>
<th>Funding Opportunity Number</th>
<th>Opportunity Title</th>
<th>Agency</th>
<th>Posted Date</th>
<th>Close Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-16-019</td>
<td>Innovation Corus (i-Coros) at NIH Program for NIH and CDC Phase I Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Grantees (Admin Supp.)</td>
<td>National Institutes of Health</td>
<td>10/28/2015</td>
<td>03/21/2016</td>
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<tr>
<td>PA-15-069</td>
<td>PHS 2015-02 Omnibus Solicitation of the NIH, CDC, FDA and ACF for Small Business Innovation Research Grant Applications (Parent SBIR (R43/R44))</td>
<td>National Institutes of Health</td>
<td>06/04/2015</td>
<td>04/05/2016</td>
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<tr>
<td>PA-14-077</td>
<td>Administrative Supplements to Existing NIH Grants and Cooperative Agreements</td>
<td>National</td>
<td>01/06/2014</td>
<td>01/30/2017</td>
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<tr>
<td>PA-13-034</td>
<td>NIH Small Research Grant Program (Parent R03)</td>
<td>National Institutes of Health</td>
<td>08/02/2013</td>
<td>09/07/2016</td>
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<tr>
<td>PA-13-033</td>
<td>NIH Exploratory/Developmental Research Grant Program (Parent R21)</td>
<td>National Institutes of Health</td>
<td>08/02/2013</td>
<td>09/07/2016</td>
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<tr>
<td>RFA-RE-16-206</td>
<td>NIH Director's Early Independence Awards (DP5)</td>
<td>National</td>
<td>03/09/2016</td>
<td>09/12/2016</td>
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<tr>
<td>PAR-16-078</td>
<td>Education and Health: New Frontiers (R21)</td>
<td>National Institutes of Health</td>
<td>01/12/2016</td>
<td>01/07/2019</td>
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<tr>
<td>PAR-16-079</td>
<td>Education and Health: New Frontiers (R03)</td>
<td>National Institutes of Health</td>
<td>01/12/2016</td>
<td>01/07/2019</td>
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<tr>
<td>PAR-16-080</td>
<td>Education and Health: New Frontiers (R01)</td>
<td>National Institutes of Health</td>
<td>01/12/2016</td>
<td>01/07/2019</td>
</tr>
</tbody>
</table>
Please fill out the following form.

Grant Application Package

Opportunity Title: Education and Health: New Frontiers (R21)
Offering Agency: National Institutes of Health
CFDA Number:
CFDA Description:
Opportunity Number: PAR-16-078
Competition ID: FORMS-D
Opportunity Open Date: 05/16/2016
Opportunity Close Date: 01/07/2019
Agency Contact: eRA Service Desk Monday to Friday 7 am to 8 pm ET http://grants.nih.gov/support/

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

Application Filing Name:
<table>
<thead>
<tr>
<th>Project Number/ID</th>
<th>Project Title</th>
<th>PI Name</th>
<th>Organization</th>
<th>Start Year</th>
<th>Agency</th>
<th>Project Type</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 R01 CA173085 03</td>
<td>MECHANISMS LINKING RAS SIGNALS TO DISORDERED HEMATOPOIESIS AND MYELOID NEOPLASIA</td>
<td>BRAUN, BENJAMIN</td>
<td>UNIVERSITY OF CALIFORNIA, SAN FRANCISCO</td>
<td>2015</td>
<td>NCI</td>
<td>NCI</td>
<td>$328,888</td>
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<tr>
<td>5 R21 CA175137 02</td>
<td>GUIDING Ca2+ CHANNEL-BASED CANCER TREATMENT USING Mn2+-ENHANCED MRI</td>
<td>BRAUN, RODNEY D</td>
<td>WAYNE STATE UNIVERSITY</td>
<td>2014</td>
<td>NCI</td>
<td>NCI</td>
<td>$192,409</td>
</tr>
<tr>
<td>3 R21 AI110158 02S1</td>
<td>MODIFIED CMV-SPECIFIC T CELLS TO TARGET HIV</td>
<td>BRAUN, STEPHEN EDWARD</td>
<td>TULANE UNIVERSITY OF LOUISIANA</td>
<td>2016</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$86,572</td>
</tr>
<tr>
<td>5 R21 AI110158 02</td>
<td>MODIFIED CMV-SPECIFIC T CELLS TO TARGET HIV</td>
<td>BRAUN, STEPHEN EDWARD</td>
<td>TULANE UNIVERSITY OF LOUISIANA</td>
<td>2015</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$164,186</td>
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<tr>
<td>5 R01 HL116713 03</td>
<td>MICRORNA FUNCTION IN HUMAN MEGAKARYOCYTES</td>
<td>BRAY, PAUL F.</td>
<td>THOMAS JEFFERSON UNIVERSITY</td>
<td>2016</td>
<td>NHLBI</td>
<td>NHLBI</td>
<td>$453,050</td>
</tr>
</tbody>
</table>
For over 100 years, NIH has supported biomedical research to enhance health, lengthen life, and reduce the burdens of illness and disability. The Fact Sheets on this site tell the stories of research discovery, current treatment status, and future expectations for the prevention and treatment of diseases and conditions affecting the nation’s health. Several of the Sheets also describe NIH policies and organizations in place to enhance public health safety and the public understanding of health science.

Search through the Fact Sheets and follow the interactive links for additional information on NIH-supported clinical studies, initiatives, and research endeavors currently underway. Each Sheet also contains links to the homepages of relevant NIH Institutes, Centers, or Offices.
<table>
<thead>
<tr>
<th><strong>R15</strong></th>
<th><strong>Academic Research Enhancement Awards (AREA)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goals of the Program</strong></td>
<td><strong>Key Features</strong></td>
</tr>
<tr>
<td>• Support meritorious research</td>
<td>• Project period is limited to 3 years.</td>
</tr>
<tr>
<td>• Expose students to research</td>
<td>• Direct costs are limited to $300,000 over the entire project period.</td>
</tr>
<tr>
<td>• Strengthen the research environment of the institution</td>
<td>• Grants are renewable.</td>
</tr>
<tr>
<td>• Preliminary data are not required.</td>
<td>• Preliminary data are not required.</td>
</tr>
<tr>
<td><strong>Application due dates:</strong></td>
<td>February 25</td>
</tr>
</tbody>
</table>
### Institutional Eligibility
- Only domestic institutions of higher education.
- Must offer baccalaureate or advanced degrees in the health-related sciences.
- Receives less than $6 million per year from NIH.

### Principal Investigator Eligibility
- PI must have a primary faculty appointment at an AREA-eligible institution.
- PI may not be the PI of an active NIH research grant at the time of an AREA award.

---

*Modular budgeting...just-in-time assurances...*
NIH AREA Grant Research Objectives

Updated: 10/07/2011

AREA grants support small-scale research projects at educational institutions that provide baccalaureate or advanced degrees for a significant number of the Nation’s research scientists, but that have not been major recipients of NIH support. The goals of the program are to (1) support meritorious research, (2) expose students to research, and (3) strengthen the research environment of the institution.

Listed below are the AREA program research topics of particular interest to each Institute/Center. The names of the contacts and their phone numbers and email addresses are available at http://grants.nih.gov/grants/guide/contacts/parent_R15.html. Applicants are encouraged to contact the person listed for the particular Institute(s) or Center(s) with research interests relevant to the applicant’s proposed topic for additional scientific program information and for pre-application guidance.

National Institute on Aging (NIA or AG) http://www.nia.nih.gov/

The NIA is interested in, and has responsibilities for, aging research that includes fundamental studies of biological processes, including studies of aging at the molecular, genetic, organelle, cellular, organ, and organ system levels; the interaction of aging and diseases of aging; biomedical and psychosocial factors in maintaining health and effective functioning in the middle and later years, relevant social and behavioral relationships; and research that broadens the base of knowledge underlying adequate health services for the aging and the aged. The NIA is interested in normal physiological and biochemical changes with aging, involving areas such as immunology, cognition, neurobiology, endocrinology, nutrition, and exercise physiology, as well as clinical diseases and disorders...
AREA Sponsors within NIH

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 Institute on Minority Health and Health Disparities (NIMHD)
National Library of Medicine (NLM)
National Center for Complementary and Integrative Health (NCCIH formerly NCCAM)
Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs (ORIP)
## R03 Small Research Grants

### Scope
- Pilot or feasibility studies
- Secondary analysis of existing data
- Small, self-contained research projects
- Development of research methodology or new research technology

### Award Characteristics
- Up to two years, $50,000 per year (Direct Costs).
- Cannot be renewed
- Preliminary data not required.
- Research Strategy may not exceed 6 pages

### Application due dates:
- February 16
- June 16
- October 16
“R03” Sponsors within NIH

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 Biomedical Imaging and Bioengineering (NIBIB)
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
National Institute on Drug Abuse (NIDA)
National Institute of Environmental Health Sciences (NIEHS)
National Institute of Mental Health (NIMH)
National Institute on Minority Health and Health Disparities (NIMHD)
National Institute of Neurological Disorders and Stroke (NINDS)
<table>
<thead>
<tr>
<th><strong>R21</strong></th>
<th><strong>Exploratory/Developmental Research Grant</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope</strong></td>
<td><strong>App/Award Characteristics</strong></td>
</tr>
<tr>
<td>• Exploratory, novel studies that break new ground or extend previous discoveries toward new directions.</td>
<td>• Project period limited to 2 years, $275,000 direct costs</td>
</tr>
<tr>
<td>• High risk high reward studies that may lead to a breakthrough</td>
<td>• Grants are not renewable.</td>
</tr>
<tr>
<td></td>
<td>• Preliminary data are not required.</td>
</tr>
<tr>
<td></td>
<td>• Research Strategy may not exceed 6 pages</td>
</tr>
</tbody>
</table>

**Application due dates:**
- February 16
- June 16
- October 16
“R21” Sponsors within NIH

National Eye Institute (NEI)
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)
Eunice Kennedy Shriver 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 on Drug Abuse (NIDA)
National Institute of Environmental Health Sciences (NIEHS)
National Institute of Mental Health (NIMH)
National Institute on Minority Health and Health Disparities (NIMHD)
National Institute of Neurological Disorders and Stroke (NINDS)
National Institute of Nursing Research (NINR)
National Library of Medicine (NLM)
National Center for Complementary and Integrative Health (NCCIH formerly NCCAM)
The **Minority Biomedical Research Support (MBRS) Program** was created in 1972 under authority of sec. 301(c) of the PHS Act. It is comprised of **Support of Competitive Research (SCORE)** and two other initiatives [Research Initiative for Scientific Enhancement (RISE) and Initiative for Maximizing Student Development (IMSD)].

The SCORE Program is a developmental program designed to increase the research competitiveness of faculty and research base of institutions with a historical mission or demonstrated commitment to training students from backgrounds underrepresented in biomedical research.
Allowable Costs

• Costs essential to the conduct of the research project, such as salaries of technicians, equipment, PD/PI's travel, supplies, fees-for-service.
• Faculty salaries, typically based on full-time, nine-month contractual appointment with the applicant organization, and reimbursed according to person months dedicated to the proposed research. PD/PI summer salary support based on person months spent on the SCORE research project is allowable if permitted by institutional policy...

Unallowable Costs

• Student stipends, salaries, or tuition are not allowed...
A **New Investigator** is an NIH research grant applicant who has not yet competed successfully for a substantial, NIH research grant.

A Program Director/ Principal Investigator (PD/PI) who has previously received a competing NIH R01 research grant is no longer considered a New Investigator. *However*, a PD/PI who has received a small grant (R03) or an Exploratory, Developmental Research Grant Award (R21) retains his or her status as a New Investigator.
New Investigators

Are given special consideration during peer review and at the time of funding.

Peer reviewers are instructed to focus more on the proposed approach than on the track record, and to expect less preliminary information than might be provided by an established investigator.

Average age one receives first R01: 42
Financial Conflicts of Interest Disclosure and training – a mandated tutorial

Must be completed prior to application submission...

A SUNY Disclosure form, but Federally-mandated.

PHS Significant Financial Interest Disclosure Form

Name of Investigator
Title
Department
Project(s) / Proposal(s)

1. List the names of all publicly traded entities from which you or a Related Party receive remuneration or in which you or a Related Party hold an equity interest. Report only those entities from which the aggregate of remuneration received in the preceding 12 months and the current value of equity interests exceeds $5,000.
<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITI Health Information Privacy and Security (HIPS) for Investigators or Research Administrators</td>
</tr>
<tr>
<td>Conflicts of Interest</td>
</tr>
<tr>
<td>IACUC Chairs, Members and Coordinators</td>
</tr>
<tr>
<td>IRB Members - Basic/Refresher</td>
</tr>
<tr>
<td>Social and Behavioral Responsible Conduct of Research</td>
</tr>
</tbody>
</table>