

**NATIONAL FEDERAL GRANTS
CONFERENCE & WEBCAST
ADVANCING HIGHER EDUCATION,
SCIENCE & OUTREACH**

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MIAMI, FL**

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Department of Health and Human Services (DHHS)**



A little background about me...



"Open the doors to all.... Let the children of the rich and the poor take their seats together and know of no distinction save that of industry, good conduct and intellect," declared Townsend Harris, president of the city's Board of Education, upon his founding of the Free Academy in a single building at Lexington Avenue and 23rd Street in Manhattan. His bold idea: to offer a free education to the children of immigrants and poorer city residents based on academic worth, not wealth.

<http://www.cuny.edu/about.html>

NIH: Steward of Medical and Behavioral Research for the Nation



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.”



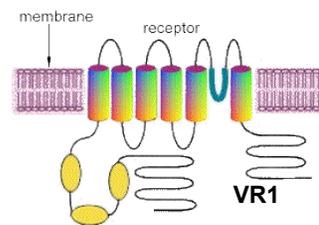
Why Does Research Matter?

Chilies, cactus and treatment of chronic pain

- One of the active ingredients in spicy “hot” foods is capsaicin
- Continuous exposure causes “desensitization” - in other words if you eat chilies regularly, your tolerance to their burning taste increases
- A receptor, VR1, that decorates the cell membranes of nerves throughout the body, senses capsaicin - this is why spicy foods can make your fingers (or eyes!) irritated



Hotness scale:
jalapeno chilies 10^3 units,
habanero chilies 10^5 units,
pure capsaicin 10^7 units,

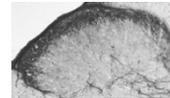
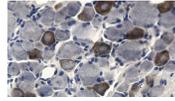


A Novel Approach for the Management of Chronic Pain

- A compound related to capsaicin has been found in a cactus, found in Mororco, termed resiniferatoxin (RTX)
 - It binds to the same receptors that capsaicin binds to, the VR1 receptors that decorate heat/pain sensing neurons



RTX-treatment selectively destroys cells that are decorated with the VR1 receptor



CONTROL



0.1 µg RTX



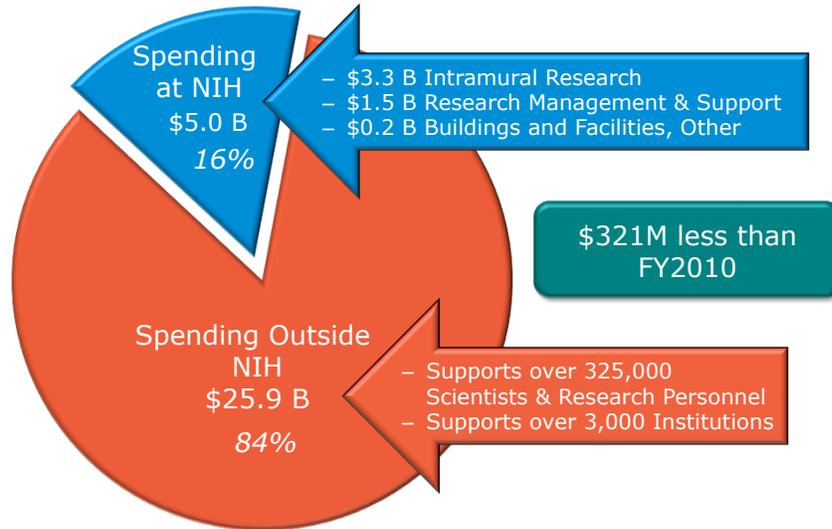
0.2 µg RTX

Cervical DRG

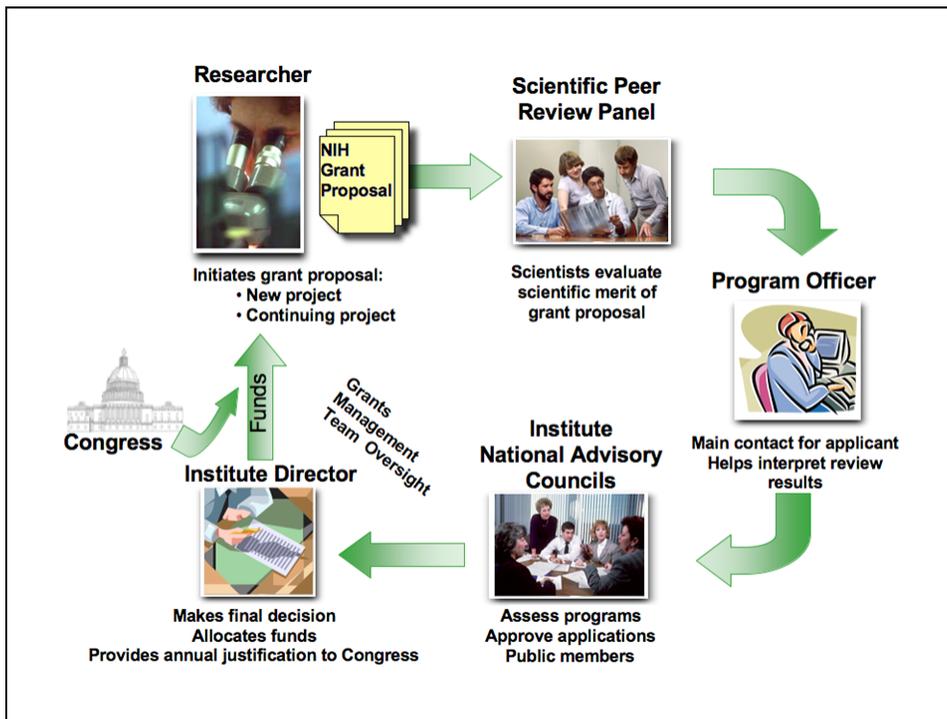
Why Does Research Matter?

Research prevents disease and leads to new treatments

NIH Extramural & Intramural Funding FY 2011 Enacted: \$30.9 Billion*



**How Do You Decide
How To Spend All That Money
And How Can I Get Some?**



Top 10 NIH Funded Florida Institutions



Institution	FY2010 Total NIH \$ Awarded*
University of Miami School of Medicine	104.7 M
University of Florida	102.3 M
H. Lee Moffitt Cancer Ctr & Res Inst	39.2 M
University of South Florida	30.3 M
Florida State University	20.9 M
Florida International University	18.8 M
Jaeb Center For Health Research, Inc.	17.2 M
University of Miami Coral Gables	10.9 M
Mayo Clinic Jacksonville	7.3 M
University of Central Florida	7.2 M

*Figures are approximate dollars awarded to each institution.

http://report.nih.gov/award/trends/State_Congressional/StateDetail.cfm?State=Florida&Lon=-81.541183&Lat=27.975639

Approaches to Supporting Research, Research Training and Career Development

NIH funds grants, cooperative agreements, and contracts that support the advancement of fundamental knowledge about the nature and behavior of living systems to meet the NIH Mission.

- Research Grants
- Career Development Awards
- Institutional Research Training Grants
- Fellowships
- Loan Repayment Awards
- Small Business Awards (SBIR/STTR)

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Principles of Success

- Understand the peer review process.
- Understand the agency mission.
 - *Every IC is different!*
- Secure collaborators (mentors) to complement your expertise and experience.
 - Don't compete ... *collaborate!*
- Learn and practice the skills of writing applications for grant funds.



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Understand the Institute/Center Mission

- Mission of each of the 24 NIH ICs able to fund grants is based and defined in law
 - Authorizations (periodic)
 - Appropriations (annual)
- ICs establish specific research emphases
 - Legislative mission
 - Current state of science

Use the Web to find out!

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U.S. Department of Health & Human Services

National Institutes of Health
NIH...Turning Discovery into Health

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Health Information | Grants & Funding | News & Events | Research & Training | **Institutes at NIH** | About NIH

NIH Loan Repayment Programs

The NIH helps repay the student loans of researchers who conduct nonprofit biomedical or behavioral research. Apply through November 15.

More >

1 2 3 4 5

IN THE NEWS

Healthy Eating with Diabetes
How to stay on track while still enjoying meals.
Posted on October 13, 2011

Community Immunity
The importance of keeping immunizations up to date.
Posted on October 6, 2011

Optimism and Self-Esteem
Study suggests genes affect your outlook.
Posted on September 29, 2011

For the Press | Newsletters & Feeds

NIH at a Glance | Funding for Research | Labs at NIH | Training at NIH

NIH is the nation's medical research agency—supporting scientific studies that turn discovery into health.

Mission | Organization | Jobs at NIH | Visitor Information | Common Questions

www.nih.gov

Health Topics A-Z | Clinical Trials

THE NIH DIRECTOR

Biographical Sketch
Photo Gallery
Video & Sound Gallery
Budget Statements
Perspectives on NIH Science — Articles by Dr. Collins
Dr. Francis S. Collins, NIH Director

Feedback NIH

Local Intranet | 100%

The screenshot shows the 'About NIDA' page on the NIDA website. The page title is 'About NIDA' and the URL is 'http://www.nida.nih.gov/About/AboutNIDA.html'. The NIDA logo is at the top left, with the tagline 'keep your body healthy'. The page is divided into several sections: 'Mission', 'Ongoing Initiatives', 'Overview', 'Budget, Planning, and Legislative Activities', 'Advisory Boards and Groups', 'Working at NIDA', 'Contacting NIDA', and 'NIDA's Publication Series'. Red arrows point to specific elements: 'The Mission' (a box around the mission statement), 'Director's Page' (a link in the Overview section), 'Initial Review Group (IRG)' (a link in the Advisory Boards and Groups section), and 'Ongoing Initiatives' (a section on the right side of the page). The 'Director's Page' link is circled in green.

Getting to the Top: Writing Great Grants

- Components of successful applications
 - Strong Idea
 - Strong Science
 - Strong Team
 - Strong Presentation
- Match idea/science to the NIH Institute
 - Every IC has specific mission
- Hone high-quality grant writing skills
 - Communicate scientific content compellingly
 - Follow all the instructions

START EARLY & PLAN!

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Tips from NIH Program Staff

Lots of directions and opportunities at the NIH



- Monitor Institute websites and the NIH Guide (<http://grants.nih.gov/grants/guide/>)
- Get to know the Program Director for your scientific area
- Contact them about your research ideas
 - Fit with institute mission and priorities
 - Best grant mechanism or program
 - Best study section for review
- Participate in workshops and symposia
- Stay abreast of the latest NIH & OER news
- Participate in review of grant applications (study sections)

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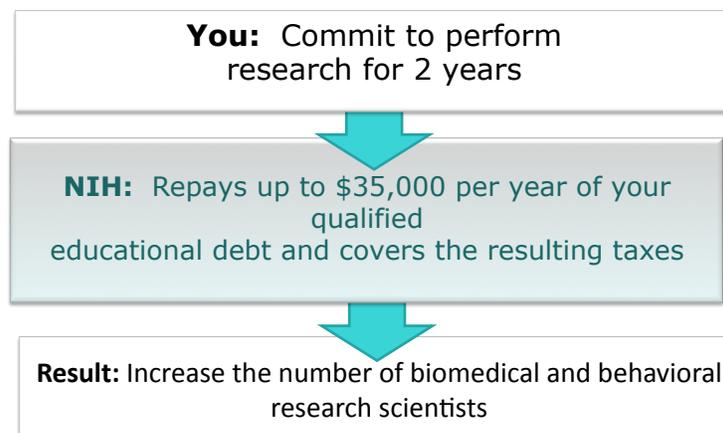
NIH Loan Repayment Program

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NIH Loan Repayment Programs (LRP)

NIH Loan Repayment Programs are a vital component of our nation's efforts to attract health professionals to careers in research.

How they work:



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Five Extramural LRPs

- Clinical Research
- Pediatric Research
- Health Disparities Research
- Contraception and Infertility Research
- Clinical Research for Individuals from Disadvantaged Backgrounds



Note: NIH employees in research positions are eligible for Intramural LRPs

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Eligibility

- Doctoral degree (M.D., D.D.S., Ph.D., or equivalent)
 - EXCEPTION: Eligibility for the Contraception and Infertility Research LRP includes nurses, physician assistants, graduate students, and postgraduate research fellows training in the health professions
- Funding for research at any domestic nonprofit, university, or government organization
- Educational loan debt must be at least 20% of applicant's annual salary
- Must conduct qualifying research for at least 20 hours/week
- U.S. Citizen or permanent resident

****NIH grant or award support NOT required****

Online Information and Application

<http://www.lrp.nih.gov>



**Application Deadline
November 15**



Research Training and Career Awards

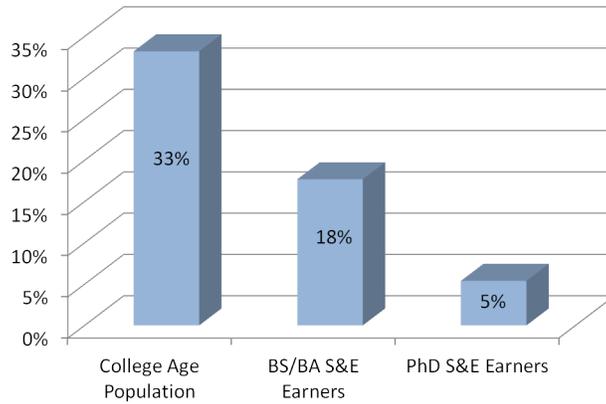
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Research Training and Career Awards

- Training Grants – *T*
 - Institutional
 - Predoctoral and Postdoctoral
- Fellowships – *F*
 - Individual
 - Predoctoral – F30, F31
 - F30 – for Individual Predoctoral MD/PhD and other Dual Doctoral Degree Fellows
 - F31 – to promote Diversity in Health-Related Research
 - Postdoctoral – F32
 - <http://grants.nih.gov/training/nrsa.htm>
- Career Development Awards – *K*

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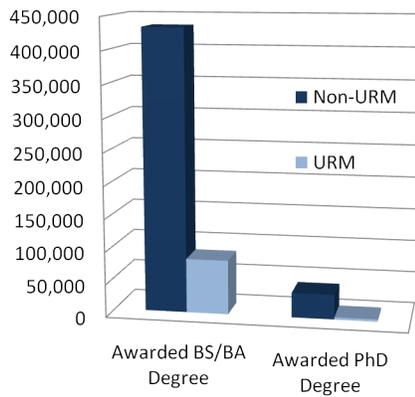
Underrepresented Minorities Demographics 2006 (in %)



Expanding Minority Participation: American's Science and Technology Talent at the Crossroads, NAS Report, 2011

Where are Opportunities for Improvement?

Awarded Degrees in Biological Sciences, Chemistry and Physics to Citizens and Permanent Residents by US Institutions (2000-2006) - NSF Web Caspar



BS → PhD

Non-URM: ~8.8%

URM: ~4.1%

Need to more than double the number of URM's to maintain proportion of Population

10/11/2011

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Grant Programs To Consider

NIH Small Grant Program (R03)

Introduction

The R03 grant mechanism will support small research projects that can be carried out in a short period of time with limited resources. The NIH has standardized the Small Grant (R03) application characteristics, requirements, preparation, and review procedures in order to accommodate investigator-initiated (unsolicited) applications.

The R03 Parent Funding Opportunity Announcement (FOA) for investigator-initiated R03 applications can be found at [PA-10-064](#) and articulates the policies and procedures that apply to this grant mechanism.

This website describes the use of the investigator-initiated R03 and describes the NIH Institutes and Centers (ICs) that intend to accept such applications.

Application Characteristics

- You may request a project period of up to two years and a budget for direct costs of up to two \$25,000 modules or \$50,000 per year.
- The R03 can not be renewed
- One resubmission (A1) is allowed
- Introduction required for a resubmission is limited to one page.
- No preliminary data are required but may be included if available.
- The Research Strategy may not exceed 6 pages.
- A doctoral student may not apply for an R03 grant to support thesis or dissertation research. An R03 award may be used to assist students who are pursuing dissertation studies when the work is within the scope of the R03 award.

Scope

The common characteristic of the small grant is the provision of limited funding for a short period of time. Examples of the types of projects that ICs support with the R03 include the following:

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

NIH Academic Research Enhancement Award (AREA) Grants - (R15)

Introduction

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

- [Academic Research Enhancement Award \(R15\)](#) - NIH Guide Program Announcement (Funding Opportunity Announcement)

The three goals of the AREA program are:

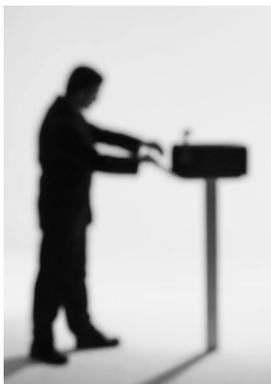
- to support meritorious research,
- to strengthen the research environment of the institution, and
- to expose students to research.

Bachelorette Granting Institutions

Students will benefit from participating in meritorious research and will be encouraged to continue studies in the biomedical sciences. The AREA or R15 grant is a research award and not a training award, so the focus is not on course work but on hands-on meritorious research.

Eligibility

Currently, NIH considers the following to be health professional schools/colleges: School/College of Medicine, Veterinary Medicine, Podiatry, Nutrition, Dentistry, Osteopathy, Pharmacy, Public Health, Optometry, Nursing, Chiropractic Medicine, and Allied Health. All other NIH funding is considered "Other Academic."



Don't stop here

Keep in contact with NIH



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NIH

Turning Discovery into Health

