Fundamentals of the NIH Grants Process

MEGAN COLUMBUS
DIRECTOR, COMMUNICATIONS AND OUTREACH
NIH OFFICE OF EXTRAMURAL RESEARCH

SEPTEMBER 2014
Common Questions

#1: Where’s the money?
#2: How do I get some?
#3: Do I call NIH before applying?
#4: How long does it take to get funded?
#5: What’s the right type of grant for my idea (and me)?
#6: Got Funded! Now What?
#7: Not Funded! Now What?
#8: How do I track my application?
#9: Where is my “go-to” place for NIH grants information?
#10: How can data on funded grants from RePORT help me?
#1 Where is the Money?
NIH is the steward of medical and behavioral research for the Nation

Our mission: to acquire new knowledge to help prevent, detect, diagnose, and treat disease and disability ...

...from the rarest genetic disorder to the common cold
27 Institutes and Centers (IC)

Each with a different:

- mission & priorities
- budget
- funding strategy
Funding Opportunities

- Advertised through
  - Grants.gov
  - NIH Guide for Grants and Contracts

- Issued by
  - Each IC
  - “Parent” announcements span the breadth of the NIH mission, include many ICs
<table>
<thead>
<tr>
<th>Type of FOA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Announcements (PA, PAR, PAS)</td>
<td>• Highlights areas of focus</td>
</tr>
<tr>
<td></td>
<td>• Usually ongoing (3 yrs)</td>
</tr>
<tr>
<td></td>
<td>• Often use standard receipt dates</td>
</tr>
<tr>
<td>Requests for Applications (RFA)</td>
<td>• Narrowly defined scope</td>
</tr>
<tr>
<td></td>
<td>• Usually single receipt date</td>
</tr>
<tr>
<td></td>
<td>• Set aside funds</td>
</tr>
<tr>
<td></td>
<td>• IC usually convenes review panel</td>
</tr>
<tr>
<td>Parent Announcements</td>
<td>• Type of program announcement</td>
</tr>
<tr>
<td></td>
<td>• Generally span the breadth of NIH mission</td>
</tr>
<tr>
<td></td>
<td>• By activity code (R01, R03, etc)</td>
</tr>
<tr>
<td></td>
<td>• For “investigator initiated” or “unsolicited” research ideas</td>
</tr>
</tbody>
</table>
#2: How Do I Get Some?
Where to start

- Develop your research idea
  - Should be important (have high impact)
  - Needs to align with an IC mission

- Identify a funding opportunity
  - If no FOA specific to your area, look for a “parent” announcement.

- Talk with NIH staff about your idea and where it fits

- Write a strong proposal that addresses review criteria
Where to start (cont.)

- Complete/renew required registrations *(Start now!)*
  - Institutions are required to register in multiple systems
  - Investigators must register in the eRA Commons

- Develop the application
  - Carefully read the funding opportunity and application instructions!!
  - Download application from funding opportunity announcement

- Learn about the electronic application submission process well before the application due date
Know Your Institution

- What is your role?

- What roles do other people play?
  - Authorized Organizational Representative
  - Principal Investigator
  - Administrator

- Coordination and respect for each other’s roles is key

- Understand your institutional processes and timelines for grant related activities
Understand the NIH Extramural Team
Program Official

- Responsible for the programmatic, scientific, and/or technical aspects of a grant
- Provides scientific guidance to investigators pre- and post-award
- Develops initiatives
- Provides post-award oversight
Scientific Review Officer

- Responsible for scientific and technical review
  - Ensures fair and unbiased evaluation of scientific and technical merit
  - Provides a summary of the evaluation
  - Reviews applications for completeness and conformance with application requirements

- Point of contact for applicants during the review process
Grants Management Officer

Responsible for completion of business management requirements

- Evaluates applications for administrative content and compliance with policy
- Negotiates Awards
- Interprets grants administration policies
#3: Do I Contact NIH Before Applying?
Do I Contact NIH *Before* Applying?

Yes!

**Mandatory**
- Application with budget ≥ $500,000 direct costs for any single year
- R13 Conference Grants

**Optional**
- When RFA’s request a Letter of Intent

**Always Recommended**
- When you think about applying for *any* grant
#4: How Long Does It Take to Get Funded?
How does a grant get funded?

Great Research Idea!

Investigator Performs the Research

Institution

Submits Application

Allocates Funds

National Institutes of Health

Center for Scientific Review
Assigns to IC & IRG / Study Section

Study Section
Reviews for Scientific Merit

Institute
Evaluates for Relevance

Advisory Councils & Board
Recommends Action

Institute Director
Makes Funding Decision
Ready for Award...When?

- All pre-award issues are resolved
  - Budget Negotiation
  - Certification on Education on Human Subjects
  - Animals & Human Subject Protection Issues
  - Other Support Documentation

- Application to award takes ~9-10 months
#5: What’s the Right Type of Grant for My Idea (and Me)?
#6: Got Funded...Now What?
You’ll Receive a Notice of Award (NoA)

- Legally binding document
  - Award data and fiscal information
  - Grant payment info
  - Terms and conditions of award

- Grantee accepts terms and conditions of award when draws down funds
NIH Grants Policy Statement

- Is a term and condition of all grant awards
- Explicitly defines roles, responsibilities
Post Award Management

- Annual progress reporting
- Annual federal financial reporting
- Invention reporting
- Yearly audits (as applicable)
- Closeout reporting
#7: Not Funded! Now What?
Regroup

- Take a deep breath
- Read summary statement
- Read it again
- Talk with your NIH program official
- Evaluate your options
  - Revise & submit again?
  - Choose a new research direction?
#8: How do I track my application?
In Commons you can find:

- Application image
- Application status
- Assignments (institute, review group)
- NIH staff contacts (SRO, program, grants management)
- Scores
- Summary statement (PI only)
- Notice of Award
- Links to tools for reporting, no cost extensions, etc.

and more...
Work with your institution’s office of sponsored research to be sure you are registered and your account is affiliated with your institution BEFORE you apply.

2 weeks lead time – PI registration in Commons
6-8 weeks – All institutional registrations and renewals

Commons.era.nih.gov
#9: Where is my “go-to” place when I get home?
Centralized info on grants process and policy
Quick access to institute and center websites
Trying to make heads or tails of the grants process?
About Grants

Grants Process Overview
Grant Application Basics
Types of Grant Programs
How to Apply
Peer Review Process
Award Management
Foreign Grants
Information
Funding Strategies

Electronic Grants
Electronic Research Admin (eRA)
eRA Commons
Applying Electronically

Forms & Deadlines
Forms & Applications
Due Dates
Submission Policies
Submitting Your Application
Overview of NIH grants process

Grants Process Overview

Any successful project requires planning, follow-through, and determining deadlines. The Grants Process Overview provides a summary of the required steps for an application to be submitted through award and review at NIH.

Planning
Applicant should start early, collect preliminary data, and determine internal deadlines.

Writing
Applicant often begins writing the application several months prior to the application's due date.

Submitting
Applicant organization submits most applications to NIH through Federal portal, Grants.gov.

Receipt and Referral
Applications compliant with NIH policies are assigned for review by the Division of Receipt and Referral in the Center of Scientific Review (CSR).

Peer Review
CSR assigns applications to an NIH Institute/Center (IC) and a Scientific Review Officer (SRO) assigns the applications to reviewers and readers.

Initial Level of Review
SRG members review and evaluate applications for scientific merit.

Impact Scores
Available to Principal Investigator on eRA Commons.

Summary Statement
Available to Principal Investigator on eRA Commons.

Second Level of Review
About Grants

Grants Process Overview
Grant Application Basics
Types of Grant Programs
How to Apply
Peer Review Process
Award Management
Foreign Grants Information
Funding Strategies
Types of Grant Programs

NIH uses activity codes (e.g. R01, R43, etc.) to differentiate the wide variety of research-related programs we support. NIH Institutes and Centers (ICs) use activity codes; not all ICs accept applications for all types of grant programs or they apply specialized eligibility criteria. Look closely at Funding Opportunity Announcements (FOAs) to determine which ICs participate and the specifics of eligibility.

A comprehensive list of all activity codes is available, or you can search for specific codes below:

- Search Activity Codes: [Input field] (e.g. R01, P01, T, K, F, etc.) Go  [Reset]
- Search All Text: [Input field] (e.g. Mentored, Training, etc.) Go
- Select from List: [Dropdown] Go

The following groupings represent the main types of grant funding we provide:

- **Research Grants** (R series)
- **Career Development Awards** (K series)
- **Research Training and Fellowships** (T & F series)
- **Program Project/Center Grants** (P series)
- **Resource Grants** (various series)
- **Trans-NIH Programs**
- **Inactive Programs (Archive)**

[grants.nih.gov/grants/funding/funding_program.htm]
Looking for the latest grants policy changes or funding announcements?
**Track Your Grants**
Grants.gov makes it easy to TRACK your federal grants that you have applied for. Enter the Grants.gov tracking number you received after submitting your application to track the processing status.

[Track your Grants](https://www.grants.gov)

---

**Find Open Grant Opportunities**

<table>
<thead>
<tr>
<th>Funding Opportunity Number</th>
<th>Opportunity Title</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPS-14-NERO-0116</td>
<td>NOTICE OF INTENT TO AWARD - The Jamaica Bay Observing System, Processes Studies and Groundwork for Long-Term Ecosystem Research and Resilience (Post-Hurricane Sandy study)</td>
<td>National Park Service</td>
</tr>
<tr>
<td>G14AS00133</td>
<td>Cooperative Ecosystem Studies Unit, Rocky Mountain CESU</td>
<td></td>
</tr>
<tr>
<td>PAR-14-319</td>
<td>Limited Competition: NIGMS National Centers for Systems Biology (P50)</td>
<td></td>
</tr>
<tr>
<td>14-C-UAS-0812AM</td>
<td>FAA Center of Excellence (COE) for Unmanned Aircraft Systems (UAS)</td>
<td></td>
</tr>
<tr>
<td>NNH14ZDA001N-SIST</td>
<td>ROSES 2014: Solar Irradiance Science Team</td>
<td></td>
</tr>
<tr>
<td>NNH14ZDA001N-RTF</td>
<td>ROSES 2014: Nancy Grace Roman Technology Fellowship</td>
<td></td>
</tr>
<tr>
<td>RFA-MH-15-750</td>
<td>Limited Competition for a Connectome Coordination Facility (R24)</td>
<td></td>
</tr>
<tr>
<td>P14AS00391</td>
<td>Hurricane Sandy Disaster Relief. Data Integration of Projects SA 24, 63, 67</td>
<td></td>
</tr>
<tr>
<td>P14AS00246</td>
<td>California Red-Legged Frog Reintroduction &amp; Monitoring</td>
<td></td>
</tr>
</tbody>
</table>

---

**www.grants.gov**
Fed-wide portal for finding grant opportunities
What can I find in the NIH Guide to Grants and Contracts?

- NIH specific funding opportunity announcements
- NIH policy notices
- Other announcements
  - Changes to FOAs
  - Events
  - NIH response to natural disasters or electronic system problems
  - Etc.
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 the NIH Guide for:
- Active RFAs (Requests for Applications)
- Active PAs (Program Announcements)
- Notices

With Announcement # or Keywords: (Optional) Search Advanced Search

- NIH Guide is published daily
- Subscribe to listserv to receive table of contents each Friday
- Subscribe to our RSS feed or follow us on Twitter
- New! Advanced search email notifications
When are applications due?

I thought this was more of a SOFT deadline!
Forms & Deadlines

Forms & Applications
Due Dates
Submission Policies
Submitting Your Application
Standard receipt dates for each type of grant

3 standard receipt dates a year.

Review and Award Cycles

<table>
<thead>
<tr>
<th></th>
<th>Cycle I</th>
<th>Cycle II</th>
<th>Cycle III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Merit Review</td>
<td>June - July</td>
<td>October - November</td>
<td>February - March</td>
</tr>
<tr>
<td>Advisory Council Round</td>
<td>August or October *</td>
<td>January</td>
<td>May</td>
</tr>
<tr>
<td>Earliest Project Start Date</td>
<td>September or December *</td>
<td>April</td>
<td>July</td>
</tr>
</tbody>
</table>

NOTES:

The actual date of the Advisory Council may occur in the month before or after the month listed. For example, some ICs may actually hold the January Advisory Council meeting in February or the October Advisory Council meeting in September.

Awarding components may not always be able to honor the requested start date of an application. Before incurring any pre-award obligations or expenditures applicants should be aware of NIH policy governing pre-award costs prior to receiving a Notice of Award. See the NIH Grants Policy Statement.

* Advisory Council Round for Cycle I applications may be August or October, and their earliest project start date may be September or December respectively.
Forms & Deadlines

Forms & Applications

Due Dates

Submission Policies

Submitting Your Application
Answers common questions on:

- On time submission
- Standard due dates falling on a weekend or holiday
- Late applications
- Post submission application materials
- Time limits for resubmitting application
- Resubmission timelines for new investigator R01 applications
- Etc...

grants.nih.gov/grants/funding/submissionpolicies.htm
Doing the right thing

Oh what to to, what to dooo?
New timeline helps track upcoming changes

August 5, 2014

**Updated App Forms Required for SBIR/STTR**

Grant applications for SBIR and STTR programs must use updated forms (FORMS-C) for due dates on or after August 5, 2014. *(NOT-OD-14-089)*
NIH Grants

- Is a term and condition of all grant awards
- Explicitly defines roles, responsibilities

Electronic submission resources
http://www.grants.nih.gov/
Applying Electronically

Most competing grant programs at NIH require electronic application submission. Since 2005 NIH has been receiving "simple" (aka "single project") applications electronically (e.g., R01, R03, etc.). Applicant organizations submit single project applications to Grants.gov, and must track their application as it moves from Grants.gov to the eRA Commons, NIH's system for grants administration, to complete the submission process.

In 2013 NIH has started to accept "multi-project" (aka "complex") applications electronically (e.g., P50, P01, etc.), see transition timeline for more information. A new electronic system, ASSIST is used to submit these multi-project applications. Each funding opportunity will clearly state whether electronic submission is required and will link you to the appropriate submission method (list of production multi-project FOAs that have transitioned to electronic submission).
Staying connected to NIH
More on More Applicants

Posted on April 26, 2013 by Sally Rockey

Last August, I wrote on the number of investigators applying for NIH grants. Several readers correctly noted that the increase we showed in the number of applicants was based on the number of investigators submitting at least one application in a given year (rather than, say, all investigators “in the system”). .... Continue reading →

Join Me at the NIH Regional Seminar in Baltimore

Subscribe for a monthly summary of Rock talk posts and articles about NIH grant happenings, resources, events

And join the discussion!

http://nexus.od.nih.gov
All About Grants Podcast

The Office of Extramural Research (OER) talks to NIH staff members about the ins and outs of NIH funding. Designed for investigators, fellows, students, research administrators, and others just curious about the application and award process, we provide insights on grant topics from those who live and breathe the information. Episodes are available as mp3s for download here, or via RSS feed. Information on RSS and Podcasts

Subscribe

RSS Feed or paste this URL into your podcasting tool:

http://grants.nih.gov/podcasts/All_About_Grants/AAG_Feed.xml

Subscribe Via iTunes

Download Episodes

So you wanna learn about...
...getting to know NIH and the grants process?
...preparing a successful grant application?
...advice for new and early-career scientists?
...submitting your application?
...how grants are reviewed?
...life as an NIH grantee?
NIH Grants Process: The Big Picture
by NIH Grants • 5 months ago • 3,369 views

View of NIH from 10,000 Feet -- Dr. Sally Rockey's Plenary - June 2014 NIH Regional Seminar
by NIH Grants • 2 weeks ago • 999 views
Dr. Sally Rockey, NIH Deputy Director for Extramural Research, shares her experiences and perspective on the role of NIH in ...

Peer Review
NIH Tips for Applicants
by NIHOD • 29,039 views • 4 years ago
NIH Peer Review Revealed
by NIHOD • 35,547 views • 2 years ago
What Happens to Your NIH Grant Application Video
by NIHOD • 8,598 views • 2 years ago

eRA (Electronic Research Administration)
Electronic Research Administration
by NIH Grants • 1 year ago
How Not to Miss Important Information About the Receipt and Review of Your Application Video
by NIH Grants • 1 year ago
View full playlist (6 videos)

Electronic Research Administration - For Reviewers
by NIH Grants • 5 months ago
Not at all satisfied with Final Scores in JAR
by NIH Grant Admin • 4 months ago
Finding help
Finding the Right Staff Contacts

- **FOAs** include contact names for program, review and grants management staff.

- **Institute websites** have org charts or contact lists so to help you find a name.  [www.nih.gov](http://www.nih.gov)

- **RePORTER** provides the NIH program official’s name for funded projects.  [projectreporter.nih.gov](http://projectreporter.nih.gov)

- Use the **NIH Staff Directory** if you already have a name  [ned.nih.gov](http://ned.nih.gov)
Our Help Desks

eRA Commons Help Desk:
Submit a web ticket (preferred method of contact)
Toll-free: 1-866-504-9552
Phone: 301-402-7469
Hours: Mon-Fri, 7 a.m. to 8 p.m. Eastern Time (closed on federal holidays)

Contact for information/questions on:
- The Commons registration process
- Status of the application
- Post-submission queries

If you need immediate help (i.e. you are within two days of a deadline or in the case of an emergency), call us. Note that the Help Desk's busiest hours are between 10 a.m. and 2 p.m.

---

Topic Specific Assistance

Submitting an NIH Grant Application

<table>
<thead>
<tr>
<th>Topic</th>
<th>Contact Email/Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need Assistance with Your Application Submission?</td>
<td>Help Desks</td>
</tr>
<tr>
<td>Guidelines for Applicants Experiencing System Issues</td>
<td>Help Desks</td>
</tr>
</tbody>
</table>

- eRA Commons Help Desk
- Grants Info
- Grants.gov Contact Center
- System for Award

---

Research training programs
- Proposal and process
- Information on the OER web site
#10: How can data on funded grants from RePORT help me?

- Which ICs fund research like yours
- Award trends
- Organizational funding information
- Potential collaborators
- NIH-funded workforce data
- NIH staff contacts
- NIH grantees in your area
- Success rates
Main navigation bar

Report.nih.gov
Let’s run through an example that shows the power of RePORT.…

*Let’s say I am interested in obesity research...*
Any NIH reports on obesity research?
Let’s look at strategic plans

Special Reports and Current Issues

Biennial Report of the Director, National Institutes of Health

Special Reports

- Consideration of the Institute of Medicine (IOM) Report on the Health of Lesbian, Gay, Bisexual, and Transgender (LGBT) Individuals
- ACD Biomedical Workforce Working Group Data
- Diversity in Academic Biomedicine: An Evaluation of Education and Career Outcomes with a Focus on Policy
- Building a Diverse Workforce of Physician Scientists: Applications for Research Funding Awards
Here’s a strategic plan for obesity research!
Major Themes for Research Highlighted in the Strategic Plan:

- **Research Opportunities:**
  - Discover fundamental biological processes that regulate body weight and influence behavior
  - Understand the factors that contribute to obesity and its consequences
  - Design and test new interventions for achieving and maintaining a healthy weight
  - Evaluate promising strategies for obesity prevention and treatment in real-world settings and diverse populations
  - Harness technology and tools to advance obesity research and improve healthcare delivery

- **Application of Research Findings:**
  - Facilitate integration of research results into community programs and medical practice
Let’s search to learn who and what NIH funds on this topic
Text search for “obesity”
4,502 active projects... yikes!

How to understand our result?
Try the Data and Visualize tab
Now it is more clear which ICs fund obesity research!
Options to export information, transform into different chart types.
Circles helps visualize specific scientific areas.
Mapping tools show us where the research is being done.

Input state to drill down.
Matchmaker can save lots of time searching for grants scientifically similar to text you provide.
Hypothalamic neurons expressing Agouti-related peptide (AgRP) are critical for initiating food intake, but druggable biochemical pathways that control this response remain elusive. Thus, genetic ablation of insulin or leptin signaling in AgRP neurons is predicted to reduce satiety but fails to do so. FoxO1 is a shared mediator of both pathways, and its inhibition is required to induce satiety. Accordingly, FoxO1 ablation in AgRP neurons of mice results in reduced food intake, leanness, improved glucose homeostasis, and increased sensitivity to insulin and leptin. Expression profiling of flow-sorted FoxO1-deficient AgRP neurons identifies G-protein-coupled receptor Gpr17 as a FoxO1 target whose expression is regulated by nutritional status. Intracerebroventricular injection of Gpr17 agonists induces food intake, whereas Gpr17 antagonist cangrelor curtails it. These effects are absent in Agrp-Foxo1 knockouts, suggesting that pharmacological modulation of this pathway has therapeutic potential to treat obesity.
Text mining. Higher match scores = more similar projects
Search results screen also provides info on clinical studies, patents, press releases and stories, and publications.

<table>
<thead>
<tr>
<th>Core Project Number</th>
<th>ClinicalTrials.gov ID</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>17-AAG in Treating Patients with Relapsed Cell Lymphoma, or Hodgkin’s Lymphoma</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Project Number</th>
<th>Patent Number</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01NS051334</td>
<td>8168222</td>
<td></td>
</tr>
<tr>
<td>P30AG012300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 2013, there were 3028 publications citing support from projects in the hit list.

Click on the column header to sort the results.

<table>
<thead>
<tr>
<th>Core Project Number</th>
<th>Title (Link to full-text in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T32DK063929</td>
<td>Differences in Home Food Environments between Obese and Healthy Weight Families of Preschool Children.</td>
</tr>
<tr>
<td>US4CA155496</td>
<td>Development and reliability testing of the worksite and energy balance survey.</td>
</tr>
</tbody>
</table>
There were 4433 results matching your search criteria. There were 4433 results matching your search criteria.

Click on the column header to sort the results.

<table>
<thead>
<tr>
<th>T</th>
<th>Act</th>
<th>Project</th>
<th>Year Sub #</th>
<th>Project Title</th>
<th>Contact PI/Project Leader</th>
<th>Institution</th>
<th>Year</th>
<th>Source</th>
<th>ID Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>R01</td>
<td>DK089201</td>
<td>0281</td>
<td>CONSERVED FETAL EPIGENOMIC SIGNATURES IN A PRIMATE MODEL OF MATERNAL OBESITY</td>
<td>AAGAARD-TILLERY, KJERSTI MARIE</td>
<td>BAYLOR COLLEGE OF MEDICINE</td>
<td>2013</td>
<td>NIDDK</td>
<td>NIDDK</td>
</tr>
<tr>
<td>5</td>
<td>R01</td>
<td>DK089201</td>
<td>02</td>
<td>CONSERVED FETAL EPIGENOMIC SIGNATURES IN A PRIMATE MODEL OF MATERNAL OBESITY</td>
<td>AAGAARD-TILLERY, KJERSTI MARIE</td>
<td>BAYLOR COLLEGE OF MEDICINE</td>
<td>2013</td>
<td>NIDDK</td>
<td>NIDDK</td>
</tr>
<tr>
<td>5</td>
<td>R44</td>
<td>HL112512</td>
<td>03</td>
<td>ACS5 INHIBITOR FOR HEART FAILURE</td>
<td>ABARZUA, PATRICIO</td>
<td>VASADE BIOSCIENCES, INC.</td>
<td>2014</td>
<td>NHLBI</td>
<td>NHLBI</td>
</tr>
<tr>
<td>5</td>
<td>F01</td>
<td>HL043384</td>
<td>40</td>
<td>INTEGRATIVE NEUROBIOLOGY OF CARDIOVASCULAR REGULATION</td>
<td>ABBoud, Francois M</td>
<td>UNIVERSITY OF IOWA</td>
<td>2012</td>
<td>NHLBI</td>
<td>NHLBI</td>
</tr>
<tr>
<td>2</td>
<td>F20</td>
<td>GM103527</td>
<td>06</td>
<td>ROLE OF BIOACTIVE LIPIDS IN THE PROTECTIVE PATHWAYS OF OBESITY IN ISCHEMIC CARDI</td>
<td>ABDEL-LATIF, AHMED</td>
<td>UNIVERSITY OF KENTUCKY</td>
<td>2013</td>
<td>NIGMS</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>U01</td>
<td>CA149204</td>
<td>03</td>
<td>ESTROGEN-ERBETA AXIS IN DISPARITY OF PROSTATE CANCER</td>
<td>ABDEL-MAGEED, ASIM</td>
<td>TULANE UNIVERSITY OF LOUISIANA</td>
<td>2013</td>
<td>NCI</td>
<td>NCI</td>
</tr>
<tr>
<td>1</td>
<td>UH2</td>
<td>TR000928</td>
<td>01</td>
<td>TARGETING TUMOR-DERIVED EXRNA-CONTAINING MICROVESICLES BY HIGH THROUGHPUT SCREENING</td>
<td>ABDEL-MAGEED, ASIM</td>
<td>TULANE UNIVERSITY OF LOUISIANA</td>
<td>2013</td>
<td>NCATS</td>
<td>OD</td>
</tr>
<tr>
<td>5</td>
<td>R01</td>
<td>HL102745</td>
<td>04</td>
<td>P90RSK: A FLOW RESPONSE MEDIATOR OF INFLAMMATION</td>
<td>ABE, JUN-CHI et al</td>
<td>UNIVERSITY OF ROCHESTER</td>
<td>2013</td>
<td>NHLBI</td>
<td>NHLBI</td>
</tr>
<tr>
<td>7</td>
<td>R01</td>
<td>HL108379</td>
<td>04</td>
<td>INSULIN RESISTANCE AND MYOCARDIAL AUTOPHAGY</td>
<td>ABDEL, EVAN DALE</td>
<td>UNIVERSITY OF IOWA</td>
<td>2014</td>
<td>NHLBI</td>
<td>NHLBI</td>
</tr>
</tbody>
</table>
DESCRIPTION (provided by applicant): Impaired insulin signaling in the myocardium may contribute to cardiac dysfunction in obesity, type 2 diabetes, and insulin resistant states. In the previous funding cycle of this award we demonstrated that myocardial insulin and IGF-1 signaling regulates mitochondrial function and that insulin signaling is required for maintaining myocardial viability in the face of hemodynamic stressors such as ischemia and pathological cardiac hypertrophy. To further dissect the mechanisms that govern insulin and growth factor signaling in the heart we generated mice with cardiomyocyte-restricted deletion of the insulin receptor substrate-1 (IRS12K0). These animals develop heart failure shortly after weaning, on the basis of unregulated autophagy, thereby defining an essential role for insulin/IGF-1 signaling acting via IRS proteins in the regulation cardiac autophagy in vivo. Although an increase in cardiac autophagy is essential for survival in establishing regular feeding, it is effectively repressed once feeding ceases. Our observations strongly implicate insulin as the signal that mediates the crosstalk between nutrient availability and autophagy regulation.
Details tab provides PI contact info and profile (if this is you, add profile info by clicking on icon)

NIH program official for this grant

FOA

Review panel
PI profiles: one example
Results tab provides publications and patents resulting from the project. (Pubs missing? If you are the PI, add them!)

<table>
<thead>
<tr>
<th>Title (Link to full-text in PubMed Central)</th>
<th>Journal (Link to PubMed abstract)</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lipotoxicity contributes to endothelial dysfunction: a focus on the contribution from ceramide.</td>
<td>Reviews in endocrine &amp; metabolic disorders. 2013 Mar; 14 (1):59-68</td>
<td>Symons, J David; Abel, E Dale</td>
</tr>
<tr>
<td>Cardiac PI3K-Akt impairs insulin-stimulated glucose uptake independent of mTORC1 and GLUT4 translocation.</td>
<td>Molecular endocrinology (Baltimore, Md.). 2013 Jan; 27 (1):172-84</td>
<td>Zhu, Yi; Pereira, Renata O; O'Neill, Brian T; Riehle, Christian; Ilkun, Olesya; Wende, Adam R; Rawlings, Tenley A; Zhang, Yi Cheng; Zhang, Quanjian; Klip, Amira; Shijoima, Ichiro; Walsh, Kenneth; Abel, E Dale</td>
</tr>
<tr>
<td>Mechanistic target of rapamycin (Mtor) is essential for murine embryonic heart development and growth.</td>
<td>PloS one. 2013; 8 (1):e54221</td>
<td>Zhu, Yi; Pires, Karla M P; Whitehead, Kevin J; Olsen, Curtis D; Wayment, Benjamin; Zhang, Yi Cheng; Bugger, Heiko; Ilkun, Olesya; Litvin, Sheldon E; Thomas, George; Kozma, Sara C; Abel, E Dale</td>
</tr>
</tbody>
</table>
Use Nearby Projects tab to locate others who may be working locally on your topic of interest.
Use similar projects tab to find more projects like this one!

Text mining. Higher match scores = more similar projects
Obesity AND hypothalam%
RePORTER allows you to search on many criteria.

<table>
<thead>
<tr>
<th>Award notice date</th>
<th>FOA</th>
<th>Study section</th>
<th>and more!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Details:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Number/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application ID:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format: 5R01CA012345-04/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8515397</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use '%' for wildcard in project number, e.g. %R21%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enter multiple project numbers/application IDs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>R01</td>
<td>CA</td>
<td>811099</td>
</tr>
<tr>
<td>Program Officer (PO):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Last Name, First Name)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use '%' for wildcard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Start Date: &gt;=</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format: mm/dd/yyyy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project End Date: &lt;=</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format: mm/dd/yyyy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award Notice Date: &gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format: mm/dd/yyyy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency/Institute/Center:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIH Spending Category:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding Mechanism:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award Type:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity Code:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Section:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOA:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format: RFA-IC-09-003 or PA-09-003</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use '% for wildcard.
Select the study section field

Expand a category to drill down
Learn more by browsing the NIH portfolio: use filters to narrow your view.
What does their intramural program do?

Pick an IC and see who and what they are funding.

<table>
<thead>
<tr>
<th>FUNDING MECHANISM</th>
<th>PROJECTS</th>
<th>TOTAL FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERAGENCY AGREEMENTS</td>
<td>13</td>
<td>$38,749</td>
</tr>
<tr>
<td>INTRAMURAL RESEARCH</td>
<td>2</td>
<td>$37,025</td>
</tr>
<tr>
<td>NON-SBIR/STTR CONTRACTS</td>
<td>1</td>
<td>$75,000</td>
</tr>
<tr>
<td>NON-SBIR/STTR RPGS</td>
<td>49</td>
<td>$32,312</td>
</tr>
<tr>
<td>OTHER RESEARCH-RELATED</td>
<td>56</td>
<td>$31,889</td>
</tr>
<tr>
<td>RESEARCH CENTERS</td>
<td>33</td>
<td>$190,088</td>
</tr>
<tr>
<td>SBIR-STTR RPGS</td>
<td>33</td>
<td>$13,065</td>
</tr>
<tr>
<td>TRAINING, INSTITUTIONAL</td>
<td>24</td>
<td>$6,948</td>
</tr>
</tbody>
</table>
How can I monitor what NIH is funding in my field, in response to an FOA, or at my institution?
**My RePORTER**

- Save portfolios or queries
- Set email alerts for updates to queries
- Email results

### Portfolios
You have 3 portfolio(s) in your profile
Click on the column header to sort the results

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Description</th>
<th>Created on</th>
<th>Last Revised On</th>
<th>Projects</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My Portfolio 3</td>
<td></td>
<td>10/14/2012</td>
<td>10/20/2012</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>My Portfolio 2</td>
<td></td>
<td>05/21/2012</td>
<td>10/20/2012</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My Portfolio 1</td>
<td></td>
<td>10/03/2011</td>
<td>10/20/2012</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

### Saved Queries
You have 2 saved queries in your profile
Click on the column header to sort the results

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Notes</th>
<th>Created on</th>
<th>Last Revised On</th>
<th>Action</th>
<th>Project Alert</th>
<th>Publication Alert</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Another Saved Query</td>
<td>This is another one</td>
<td>03/27/2012</td>
<td>10/20/2012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>My First Saved Query</td>
<td>This is the first saved query</td>
<td>09/11/2012</td>
<td>10/20/2012</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How much funding in my state and congressional district?

What types of organizations does NIH fund?

Who has NIH funding in my university system?
NIH Awards by Location & Organization

Select criteria

Drill down to grant level data

Sort by heading

Select output
<table>
<thead>
<tr>
<th>Organization</th>
<th>City</th>
<th>State</th>
<th>Country</th>
<th>Awards</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIVERSITY OF TEXAS SYSTEM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAYLOR COLLEGE OF MEDICINE</td>
<td>HOUSTON</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>101</td>
<td>$57,506,729</td>
</tr>
<tr>
<td>TEXAS A&amp;M UNIVERSITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS A&amp;M AGRILIFE RESEARCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS A&amp;M UNIVERSITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS A&amp;M UNIVERSITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS A&amp;M UNIVERSITY HEALTH SCIENCE CTR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS A&amp;M UNIVERSITY-KINGSVILLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS ENGINEERING EXPERIMENT STATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNIVERSITY OF NORTH TEXAS</td>
<td>DENTON</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>15</td>
<td>$5,197,711</td>
</tr>
<tr>
<td>TEXAS TECH UNIVERSITY</td>
<td>LUBBOCK</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>13</td>
<td>$3,872,061</td>
</tr>
<tr>
<td>UNIVERSITY OF HOUSTON SYSTEM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>METHODIST HOSPITAL RESEARCH INSTITUTE</td>
<td>HOUSTON</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>9</td>
<td>$3,127,042</td>
</tr>
<tr>
<td>TEXAS BIOMEDICAL RESEARCH INSTITUTE</td>
<td>SAN ANTONIO</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>9</td>
<td>$5,080,209</td>
</tr>
<tr>
<td>RICE UNIVERSITY</td>
<td>HOUSTON</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>7</td>
<td>$2,321,940</td>
</tr>
<tr>
<td>BAYLOR UNIVERSITY MEDICAL CENTER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEXAS HEART INSTITUTE</td>
<td>HOUSTON</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>3</td>
<td>$1,922,825</td>
</tr>
<tr>
<td>SOUTHERN METHODIST UNIVERSITY</td>
<td>DALLAS</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>2</td>
<td>$479,825</td>
</tr>
<tr>
<td>PULMOTECT, INC</td>
<td>HOUSTON</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>2</td>
<td>$539,494</td>
</tr>
<tr>
<td>TEXAS CHRISTIAN UNIVERSITY</td>
<td>FORT WORTH</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>2</td>
<td>$1,120,054</td>
</tr>
<tr>
<td>BIO SCIENTIFIC CORPORATION</td>
<td>AUSTIN</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>1</td>
<td>$225,000</td>
</tr>
<tr>
<td>SILICON AUDIO, LLC</td>
<td>AUSTIN</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>1</td>
<td>$149,828</td>
</tr>
<tr>
<td>SAVARA, INC.</td>
<td>AUSTIN</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>1</td>
<td>$1,680,649</td>
</tr>
<tr>
<td>RETINA FOUNDATION OF THE SOUTHWEST</td>
<td>DALLAS</td>
<td>TX</td>
<td>UNITED STATES</td>
<td>1</td>
<td>$202,650</td>
</tr>
</tbody>
</table>
### UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT awards summary for Fiscal Year 2014

<table>
<thead>
<tr>
<th>Department</th>
<th>Dollar Amount</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOCHEMISTRY</td>
<td>$872,266</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>$84,747</td>
<td>2</td>
</tr>
<tr>
<td>DENTISTRY</td>
<td>$295,263</td>
<td>1</td>
</tr>
<tr>
<td>INTERNAL MEDICINE/ MEDICINE</td>
<td>$1,615,257</td>
<td>7</td>
</tr>
<tr>
<td>MICROBIOLOGY/ IMMUN/ VIROLOGY</td>
<td>$1,686,245</td>
<td>7</td>
</tr>
</tbody>
</table>

### by PI

<table>
<thead>
<tr>
<th>PI Name</th>
<th>Awards</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGUIAR, RICARDO C</td>
<td>1</td>
<td>$289,927</td>
</tr>
<tr>
<td>AHUJA, SUNIL K</td>
<td>1</td>
<td>$666,363</td>
</tr>
<tr>
<td>ASMIS, RETO H.R.</td>
<td>1</td>
<td>$362,538</td>
</tr>
<tr>
<td>BARRON, DANIEL S.</td>
<td>1</td>
<td>$29,728</td>
</tr>
<tr>
<td>BECKSTEAD, MICHAEL J</td>
<td>1</td>
<td>$332,247</td>
</tr>
<tr>
<td>BHAT, MANZOOR A</td>
<td>2</td>
<td>$652,669</td>
</tr>
<tr>
<td>BROWN, ARMAND</td>
<td>1</td>
<td>$30,209</td>
</tr>
<tr>
<td>CASALI, PAOLO</td>
<td>2</td>
<td>$590,274</td>
</tr>
<tr>
<td>CLARKE, WILLIAM P</td>
<td>1</td>
<td>$279,536</td>
</tr>
<tr>
<td>DAWNS, LYNETTE C</td>
<td>2</td>
<td>$503,828</td>
</tr>
<tr>
<td>DOUGHERTY, DONALD M</td>
<td>2</td>
<td>$1,124,550</td>
</tr>
</tbody>
</table>
Quick access to stats on funding
In aggregate or by year, IC, mechanism, activity, new/continuing
Quick searches for a single answer...

...or retrieve all years and analyze trends over time.
I’d like to learn more about NIH application and award trends over time. How can I learn more about the NIH-funded workforce?
Drill down for data on these topics (updated annually)
SUCCESS RATES AND FUNDING RATES
KIRSCHSTEIN-NRSA INSTITUTIONAL RESEARCH TRAINING GRANTS: COMPETING APPLICATIONS, AWARDS, AND SUCCESS RATES

<table>
<thead>
<tr>
<th>Year</th>
<th>Applications</th>
<th>Awards</th>
<th>Success Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>512</td>
<td>329</td>
<td>64%</td>
</tr>
<tr>
<td>1999</td>
<td>567</td>
<td>362</td>
<td>64%</td>
</tr>
<tr>
<td>2000</td>
<td>595</td>
<td>401</td>
<td>67%</td>
</tr>
<tr>
<td>2001</td>
<td>594</td>
<td>369</td>
<td>62%</td>
</tr>
<tr>
<td>2002</td>
<td>666</td>
<td>386</td>
<td>56%</td>
</tr>
<tr>
<td>2003</td>
<td>753</td>
<td>402</td>
<td>53%</td>
</tr>
<tr>
<td>2004</td>
<td>777</td>
<td>382</td>
<td>49%</td>
</tr>
<tr>
<td>2005</td>
<td>933</td>
<td>389</td>
<td>42%</td>
</tr>
<tr>
<td>2006</td>
<td>824</td>
<td>348</td>
<td>42%</td>
</tr>
<tr>
<td>2007</td>
<td>842</td>
<td>416</td>
<td>49%</td>
</tr>
<tr>
<td>2008</td>
<td>758</td>
<td>366</td>
<td>48%</td>
</tr>
<tr>
<td>2009</td>
<td>787</td>
<td>395</td>
<td>50%</td>
</tr>
<tr>
<td>2010</td>
<td>732</td>
<td>382</td>
<td>52%</td>
</tr>
<tr>
<td>2011</td>
<td>686</td>
<td>320</td>
<td>47%</td>
</tr>
<tr>
<td>2012</td>
<td>685</td>
<td>328</td>
<td>48%</td>
</tr>
<tr>
<td>2013</td>
<td>676</td>
<td>283</td>
<td>42%</td>
</tr>
</tbody>
</table>

Notes:
Not included are awards made under the American Recovery and Reinvestment Act of 2009 and, beginning with fiscal year 2009, awards made under reimbursable agreements, appropriations to NIH for Superfund-related activities, gift funds, and Breast Cancer Research Stamp funds.

Source: NIH IMPAC, Success Rate File
Contact: ABD at ABD Statistical Information Reporting (AISR)
How much did NIH spend on a particular disease or research area?

Annual funding for various research, condition, and disease categories...
Use ExPORTER to get the data to do your own detailed analysis.
Video tutorials are available to help you with the RePORT website and tools!
Information is Power.

Explore our resources!