



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health



# Peer Review of NIH Research Grant Applications

**Anthony M. Coelho, Jr., Ph.D.**

Review Policy Officer

Office of the Director NIH

Office of Extramural Research



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
National Institutes of Health



**Anthony M. Coelho, Jr., Ph.D.**

## **Experience:**

- **Review Policy Officer** **5 years**
- **Chief - Clinical Studies and Training** **7 years**  
Section NIHBI and  
**Scientific Review Administrator**
- **Peer Reviewer** **12 years**
- **Funded Investigator** **18 years**  
**(NIH, DOE, EPA and Private Sector Funding)**

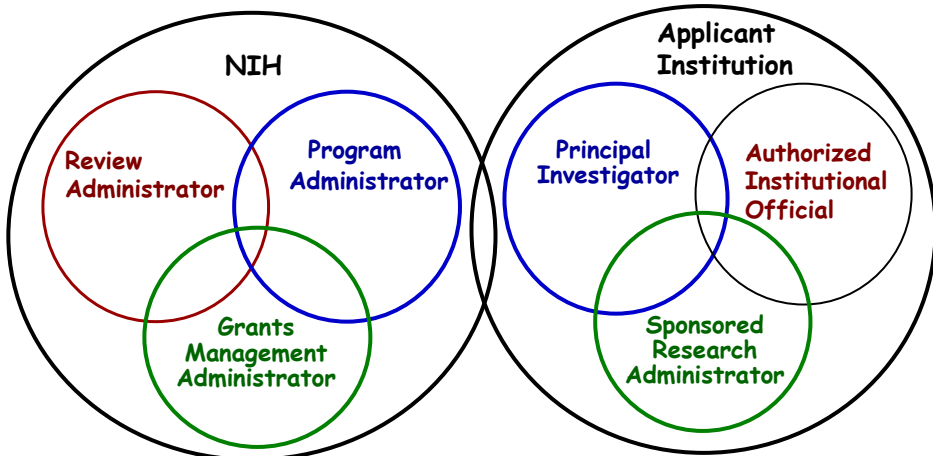
## **Important Things to Know:**

- 1. The handout material is a reference resource**
- 2. The handout contains more information than I will discuss**
- 3. Information that is important is repeated to remind you that it is important**

## **Important Things to Know:**

- NIH Peer Review Process based on Laws**
- NIH Peer Review Practices based on Culture and Behavior of Study Section Culture**
- My objective is to help you understand both**

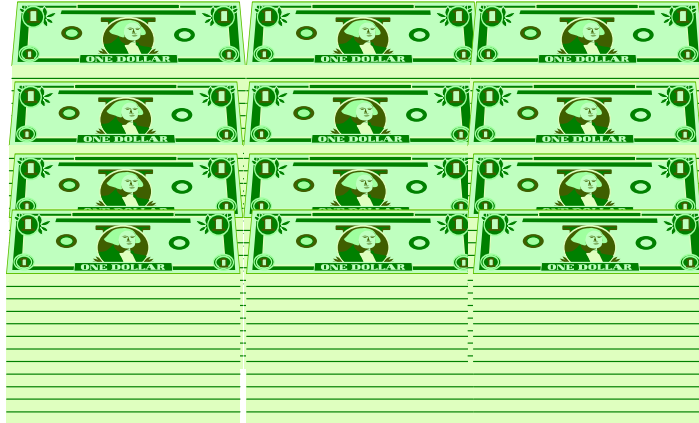
## The NIH View: The Research Partnership



## *The Applicant View:*

**\$ NIH \$**

## NIH 2005 Budget 28+ Billion



~26 Billion for Research

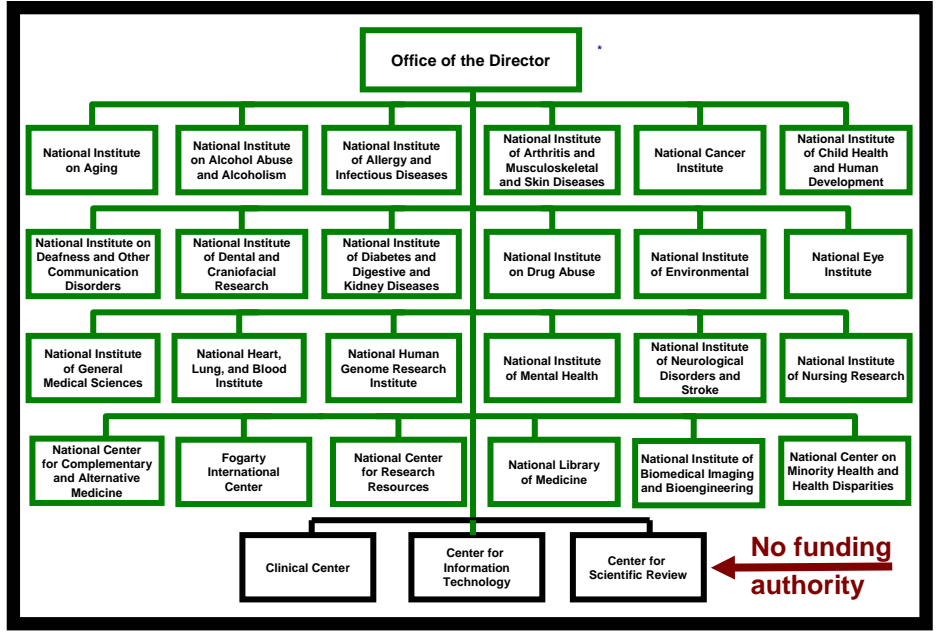
## Rule #1



**DO NOT** write the application for **Yourselves** unless you are going to fund it yourself

You **MUST** convince the entire review committee and the funding agency

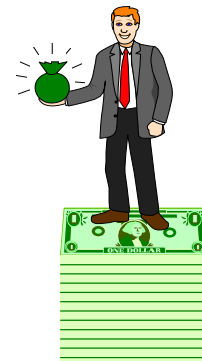
**"Inside the box"**



**Rule #2**

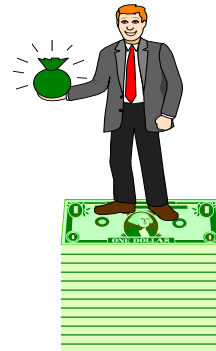
**STUDY SECTIONS**  
**DO NOT FUND!**

**INSTITUTES FUND!**

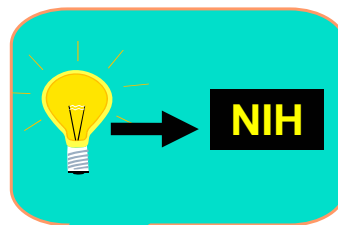


## Rule #3

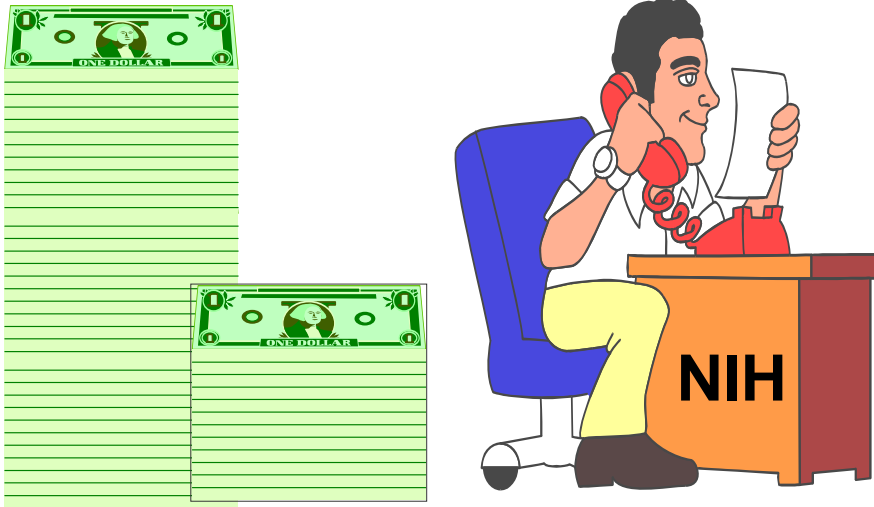
**You must satisfy the needs of reviewers and the needs of the funding agency**



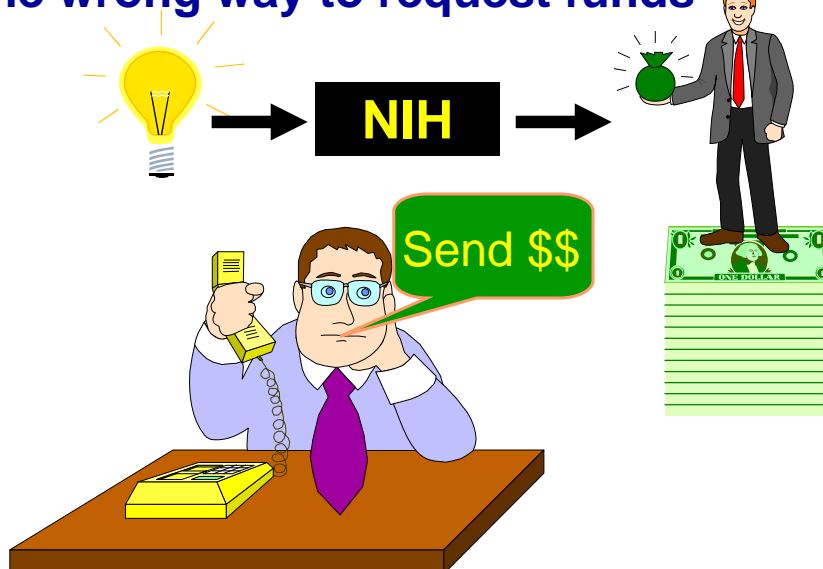
Applying for Funding



## Offices at NIH



## The wrong way to request funds





## Response to the wrong form of request

## Correct Way to request Funds



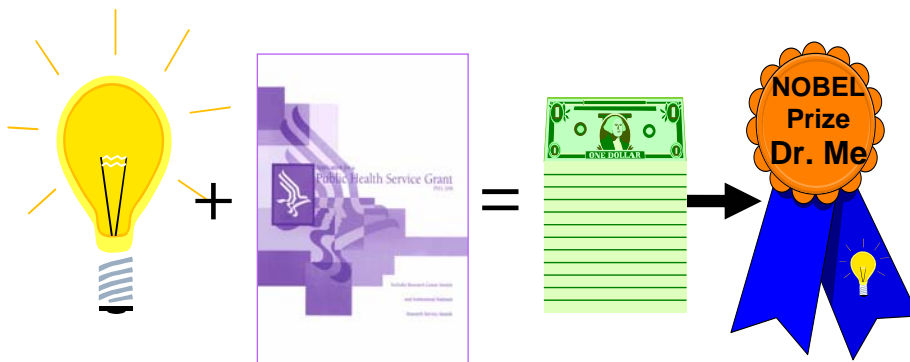


# PHS Research Grant Application Kit (form PHS 398)

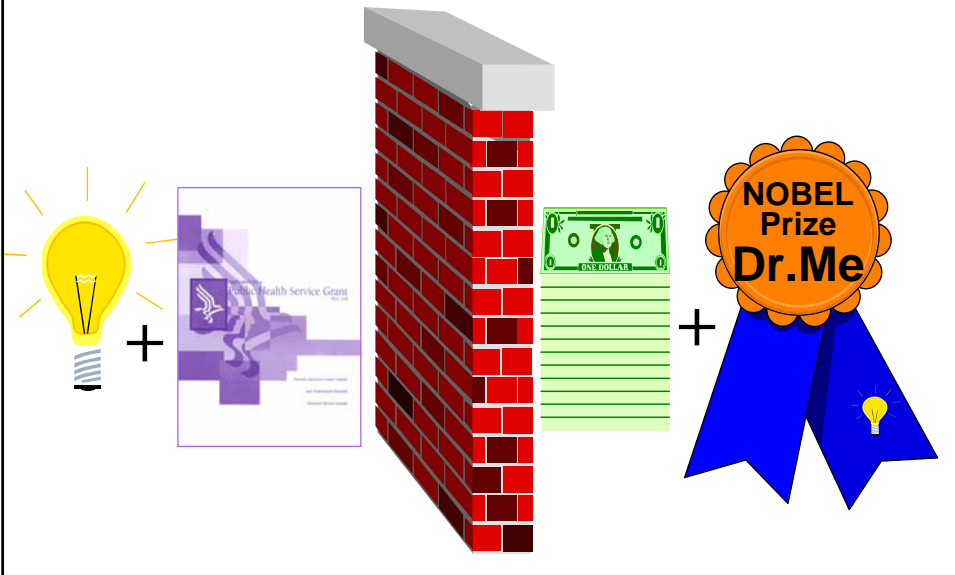
## Electronic Forms and Instructions



### Great Expectations



# Peer Review



# Response to Unsuccessful Peer Review





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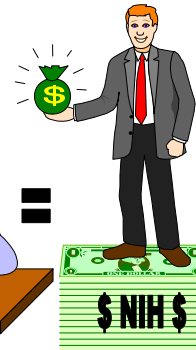
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# NIH GRANTS\$

## Formula for Grant Success

## Elements of Grant Success



**Good Ideas**



**Good Reviewers**



**Good Timing**



**Good Luck**



**Good Presentations**



**Good Grantsmanship**

# Good Grantsmanship

## \*Knowing + Understanding

- What to do
- How to do it
- When to do it
- What to do when things don't go as planned

## \*Being willing to do what is needed

- Passion and Commitment

## \*Doing it- doing what is needed

- Commitment

## \* Understanding Peer Review

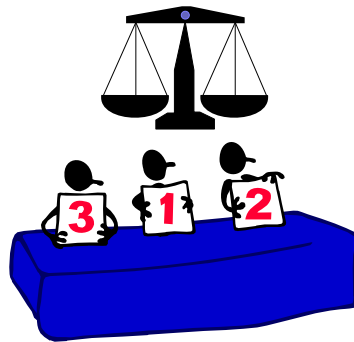


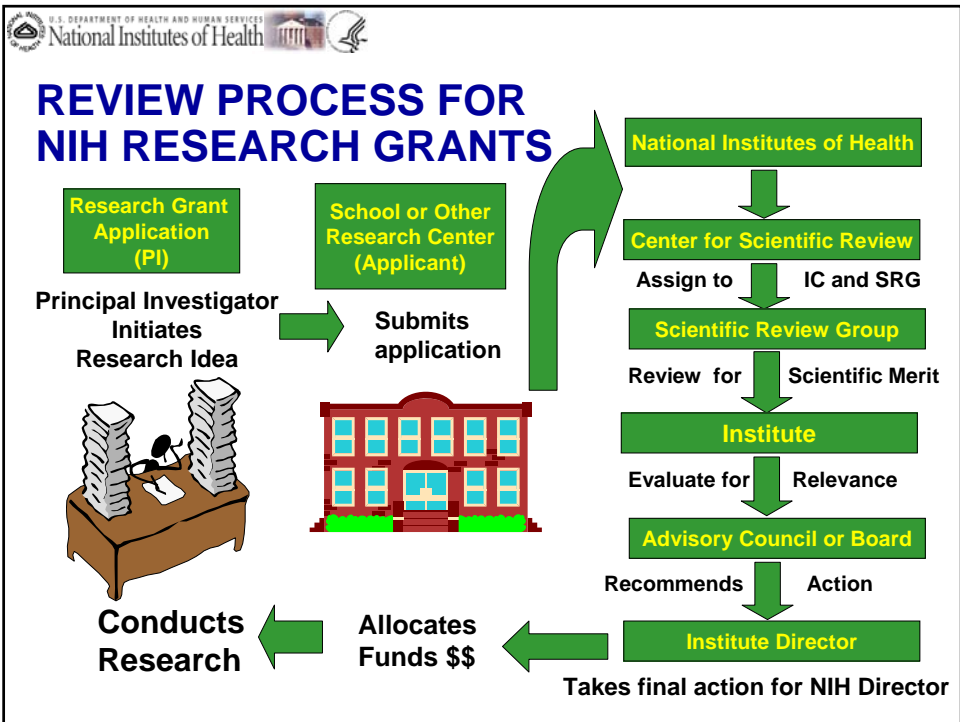
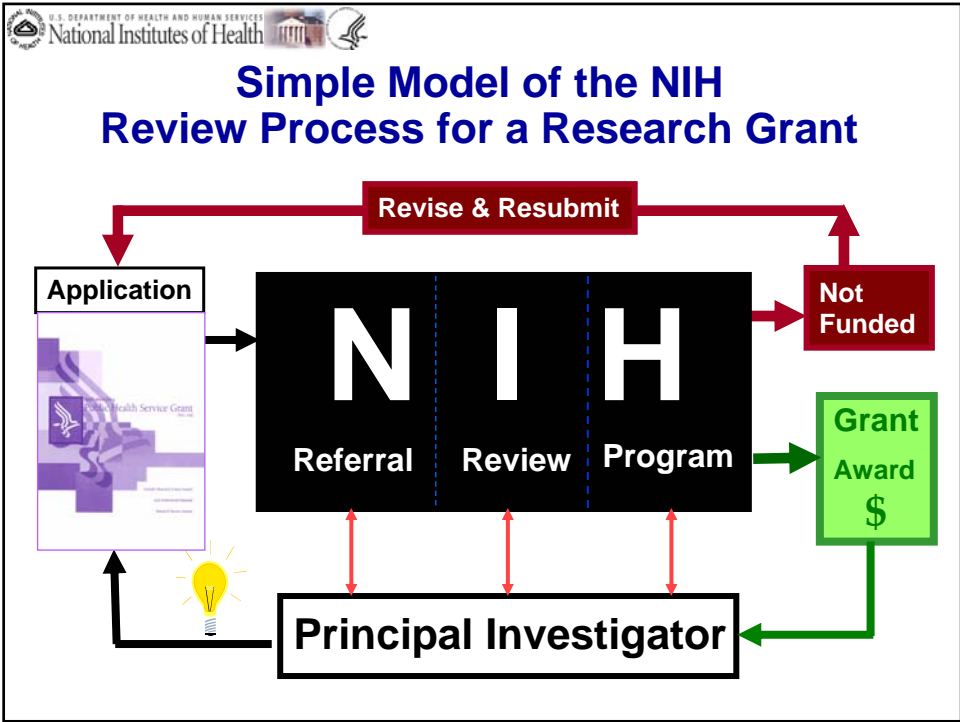
# The “other” method of applying for grant funds





# Understanding NIH Peer Review





## Dual Review System for Grant Applications

### First Level of Review

#### Scientific Review Group (SRG)

Provides Initial Scientific Merit

Review of Grant Applications

Rates Applications and

Recommends for Level of Support

and Duration of Award



### Second Level of Review

#### Advisory Council

Assesses Quality of SRG Review of Grant Applications

**Makes Recommendation** to Institute Staff on Funding

Evaluates Program Priorities and Relevance

Advises on Policy

## STUDY SECTIONS JUDGE



### Scientific and Technical Merit

Institute staff use the evaluations as part of the process of considering the relevance of applications to the Institute's mission, research priorities and portfolio of existing research

**STUDY SECTIONS DO NOT FUND !**

**INSTITUTES FUND!**

# **Grant Application Receipt and Assignment**

## **Applications Submitted to NIH**

- **Approximately 65,000+ grant applications are submitted to NIH each year,**
- **25-30% are funded**
- **Competing grant applications are received for three review cycles per year**



# Timeline

Submission      Review      Post-Review Phase

Oct 1/Nov 1* '03	Feb Mar '04	Mar- Jun'04	May/Jun '04	Jul 1 '04
Feb 1/Mar 1* '04	Jun Jul '04	Sep 30'04	Sep/Oct '04	Dec 1 '04
Jun 1/Jul 1* '04	Oct Nov '04	Nov- Feb'05	Jan/Feb '05	Apr 1 '05

Standard  
Receipt Date  
(new/ \*revised  
and continuation)

Initial  
Peer  
Review

Council Meeting;  
Funding Approved  
for Nonexpedited  
and Special Action  
Awards

Anticipated  
Award

*Funds Released for  
Payline Grants Chosen  
for Expedited Second-  
Level Review*

## Receipt Dates \* \*\*

### Depend on the Type of Application

- Jan, May, Sept 10: Institutional Training Grant
- Jan, May, Sept 25: Academic Research Enhancement Award
- Mar, Jul, Nov 1: Revised, Competing Continuations, and Supplements
- April, Aug, Dec 1: Small Business Technology Transfer
- April, Aug, Dec 5: Individual NRSA
- April, Aug, Dec 1: Small Business Innovation Research
- May, Sept, Jan 1: AIDS

\* RFA and RFP dates defined in the solicitations

**\*\* ALWAYS check with Institutes to verify dates**

????  
**What Happens To  
Your Application  
When It Arrives at  
NIH**  
????



## **Center for Scientific Review (CSR)**

### **Focal Point for Receipt and Referral**

- **Central receipt point for PHS applications**
- **Referral to Institutes (Funding Components) and to Study Sections (Review Components)**
- **CSR study sections reviews of most investigator initiated research and research training applications for scientific merit**

## **Assignment to CSR Study Sections**

**Applications assigned to study sections known as Scientific Review Groups (SRG) based on:**

- 1. specific referral guidelines for each SRG and**
- 2. information contained in your application**

**(Go to the Website <http://era.nih.gov/roster/index.cfm> to learn about study sections – their scientific mission and their scientific membership)**

## **WHO/WHAT DETERMINES WHICH GROUP REVIEWS THE APPLICATION?**

- **Mechanism**  
Type of application  
CSR or Institute Review
- **Referral and Review Staff**
- **Past Review History (if any) of application**
- **Principal Investigator**  
Letter attached to application; self-referral

## **Peer Review of NIH Support Mechanisms**

### **Who Reviews What ?**

#### **CSR**

#### **Institutes**

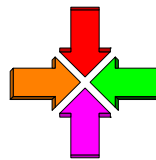
Research Project Grant (R01)  
Postdoctoral Fellowship (F32)  
Senior Fellowship (F32)  
Fogarty International Center Fellowship (F05, F06)  
Short-Term Training (T35)  
Small Business Grants (R41, R42, R43, R44)  
Academic Research Enhancement Award (R15)  
Biomedical Research Support Shared Instrumentation Grant (S10)

Program Project Grant (P01)  
Center Grant (P30, P50, P60)  
Institutional Fellowship (T32)  
Academic Career Award (K07)  
Mentored Clinical Scientist Development Award (K08)  
Conference Grant (R13)\*  
Marc Fellowships (F34, F36, T34)  
Minority Biomedical Support Grant (S06)  
Resource Grant (P40, P41, R24, R26, R28)  
RFA - Request for Applications  
R&D - Contracts

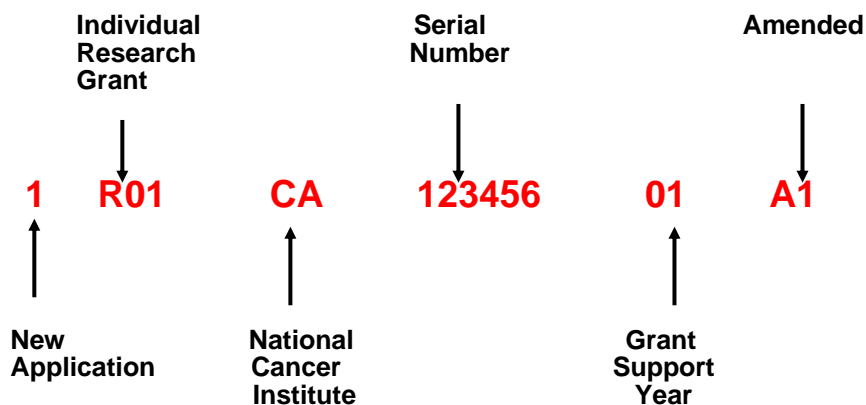
## **WHO/WHAT DETERMINES WHICH GROUP REVIEWS THE APPLICATION?**

### **YOU DO!**

- The words that are in your application
- Your title
- Your abstract
- Your specific aims
- Your methods



## **Sample Application Number**



## ***Assignment Notification Letter***

Dear Dr. Sample:

Your grant application entitled “**CEREBRAL VESSEL INNERVATION IN HYPERTENSION**” has been received by the National Institutes of Health and assigned to a Scientific Review Group (SRG) for scientific merit evaluation and to an Institute/Center for funding consideration. Specific information about your assignment is given below. The initial peer review should be completed by **March, 2001**, and a **funding decision** made shortly after the appropriate National Advisory Group meets in **May, 2001**. Questions about the assignment should be directed to the Scientific Review Administrator (SRA) or the Division of Receipt and Referral, Center for Scientific Review at **(301) 435-0715**. Other questions prior to review should be directed to the Scientific Review Administrator and questions after the review to the program staff in the Institute/Center.

## ***Assignment Notification Letter (continued)***

**Principal Investigator:** Sample Pamela

**Assignment Number:** 2 R01 HL12345 - 12A1

**Dual Assignment:** NS

**Scientific Review Group:**

Epidemiology and Disease Control Subcommittee 2 SS (EDC2)

A roster of the membership of this Scientific Review Group located on the following website:

<http://era.nih.gov/roster/index.cfm>

## ***Assignment Notification Letter (continued)***

### **Scientific Review Administrator:**

**DR. DAVID MONSEES, SRA  
CTR FOR SCIENTIFIC REV  
6701 ROCKLEDGE DR RM 3199 MSC7802  
BETHESDA MD 20892  
(301) 435-0684**

### **Assigned Institute/Center:**

**NATL HEART, LUNG, & BLOOD INST  
DIV/EXTRAMURAL AFFAIRS RK2 7100  
NATIONAL INSTITUTES OF HEALTH  
BETHESDA, MD 20892  
(301) 480-5295**

## ***Assignment Notification Letter (continued)***

**IMPORTANT NOTICE: Please review the  
information on human and animal subjects  
research located at:**

**[http://grants.nih.gov/grants/peer/hum\\_anim\\_notice.pdf](http://grants.nih.gov/grants/peer/hum_anim_notice.pdf)**

***as these requirements will affect the priority  
score on your application.***

# ***Study Section Meeting: Scientific Review Groups***

## **TYPES OF REVIEW COMMITTEES:**

### **Chartered Study Sections**

- when the subject matter of the application matches the referral guidelines for the standing study section

### **Special Emphasis Panels (SEPs)**

- when the subject matter does not fit into any study section, or
- when assignment of an application to the most appropriate study section would create a conflict of interest, or
- Special Mechanisms (RFA, Fellowships, SBIRs, AREAS, etc.)



## Study Sections at NIH

- **Study Sections are managed by a Scientific Review Administrator (SRA)** who is a professional (at Ph.D. or MD level) whose scientific background is close to the expertise of the study section
- **Each standing study section has 12 - 24 members** who are primarily from academia
- **60 - 100 applications** are reviewed at each study section meeting
- **Several hundred study section meetings**
- **Special Emphasis Panels** vary in size and number of applications that they review per meeting

## SCIENTIFIC REVIEW GROUP

### Scientific Review Administrator

- Recruits and selects reviewers
- Insures that the review that is competent, thorough and fair (unbiased)
- Proper review criteria used to evaluate application

### Reviewers

- Some charter members; some temporary members
- Scientists with appropriate expertise
- High professional profiles
- Dependable, reasonable, open minded



### Grants Technical Assistant

- Mails material to reviewers
- Handles paperwork
- Organizes meeting room
- Enters scores and codes
- Assists with summary statements

## Center for Scientific Review

*Example of Varied Expertise on a Sample Study Section*

### Surgery, Anesthesiology and Trauma Study Section Selected Areas of Competence of Members

Biochemistry

Burn Physiology and Electrolyte Metabolism

Cardiovascular and Pulmonary Physiology

Clinical Anesthesiology

Drug Metabolism (Anesthetics)

General Surgery

Immunology and Transplantation

Nutrition

Pharmacology (Analgesics, Narcotics and Antagonists)

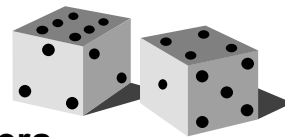
Pulmonary Embolism

Shock and Trauma

Toxicology of Anesthetic Drugs

Vascular Surgery

## WHO ASSIGNS REVIEWERS TO MY APPLICATION?



- **Scientific Review Administrator**
  - Assignment to Specific Reviewers
    - Based on application content
    - Based upon expertise of reviewers
    - Based upon knowledge of the field
    - May consult with Institute staff
    - May consult with chairperson
    - **Suggestions from PI on type of expertise needed to evaluate (NEVER names)**
    - Considers review history

## ***Criteria For Selection of Peer Reviewers***

- **Demonstrated Scientific Expertise**
- **Doctoral Degree or Equivalent**
- **Mature Judgment**
- **Work Effectively in a Group Context**
- **Breadth of Perspective**
- **Impartiality**
- **Interest in Serving**
- **Adequate Representation of Women and Minority Scientists**

## ***Certification of No Conflict of Interest***

This will certify that in the review of applications and proposals by **(study section)** on **(date)**, I did not participate in the evaluation of any grant or fellowship applications from (1) any organization, institution or university system in which a financial interest exists to myself, spouse, parent, child, or collaborating investigators; (2) any organization in which I serve as officer, director, trustee, employee or collaborating investigator; or (3) any organization which I am negotiating or have any arrangements concerning prospective employment or other such associations.

\_\_\_\_\_  
\_\_\_\_\_  
**SIGNATURES**  
\_\_\_\_\_  
\_\_\_\_\_

## Confidentiality

- Review materials and proceedings of review meetings represent privileged information to be used only by consultants and NIH staff.
- At the conclusion of each meeting, consultants will be asked to destroy or return all review-related material.
- Consultants should not discuss review proceedings with anyone except the SRA.
- Questions concerning review proceedings should be referred to the SRA.

## WHAT HAPPENS IN A STUDY SECTION MEETING?

- **Closed to the public (FOIA rules apply)**
- **Orientation**
  - Conflict of interest
  - Developments of interest to the study section
  - Changes in policy or procedure
  - Introduction of persons present
  - Role of persons present
- **Streamlining or list provisionally approved**
- **Application by application discussion**
  - Persons with conflicts of interest excused
  - Assigned reviewers give preliminary scores
  - Discussion of application's scientific and technical merit
  - Assigned reviewers first, then other members
  - Range of scores set
- **Every member scores every application \***
  - Assignment of gender, minority, and children codes, human subjects codes; recommended changes to budget



## WHAT IS STREAMLINING?

Process by which reviewers judge which applications are in the lower half of those assigned for review.

Applications in the lower half are evaluated by the reviewers prior to attending the meeting but they are **not discussed** at the Scientific Review Group meeting.

- Any member can object to the streamlining of an application
- Requires that all reviewers agree to streamline an application
- Streamlined applications receive written reviewer critiques

### Why?

- Shortens meetings
- Reviewers more willing to serve on committee
- Allows more time for discussion of applications

## “Review” of Applications

- Applications are not reviewed at the meeting.
- They are evaluated prior to the meeting.
- The meeting is a time for discussion and negotiation of a priority score and for making a recommendation that best reflects the scientific and technical merit of the application.
  - Strong applications get brief discussion
  - Weak application get brief discussion
  - Marginal application get longer discussion to ensure fairness to the applicant

# Review of Research Grants

## REVIEW CRITERIA:

- Significance
- Approach
- Innovation
- Investigator
- Environment

Described in detail in the PHS 398 application instructions

## *Review Criteria*

- **Significance:** Does the study address an important problem? How will scientific knowledge be advanced?
- **Approach:** Are design and methods well-developed and appropriate? Are problem areas addressed?
- **Innovation:** Are there novel concepts or approaches? Are the aims original and innovative?
- **Investigator:** Is the investigator appropriately trained?
- **Environment:** Does the scientific environment contribute to the probability of success? Are there unique features of the scientific environment?

## **Newly Revised Review Criteria**

- **1. Significance** Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
- **2. Approach** Are the conceptual or clinical framework, design, methods, and analyses adequately developed, well integrated, well reasoned, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics?
- **3. Innovation** Is the project original and innovative? Does the project challenge existing paradigms or clinical practice; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?
- **4. Investigators** Are the investigators appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the principal investigator and other researchers? Does the investigative team bring complementary and integrated expertise to the project (if applicable)?
- **5. Environment** Does the scientific environment in which the work will be done contribute to the probability of success? Do the proposed studies benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?

## **Research Involving Human Subjects**

**Important Considerations that must be addressed in the application because they impact on priority score - considered to be part of the Approach**

- Are there any risks\* to the human subjects?
- Are the protections adequate?
- Are there potential benefits to the subjects and to others?
- What is the importance of the knowledge to be gained?
- Are the plans for inclusion of minorities, both genders and children adequately addressed?
- Is the proposed study exempt from human subject review?
- **No page limits**

\* "Risks" include the possibility of physical, psychological, or social injury resulting from research.

## **Research Involving Human Subjects**

### **Areas of exemption**

- **Education Research**
  - normal educational practices
- **Educational Tests, Survey or Interview Procedures, or Observation of Public Behavior**
  - subjects not identified
  - subjects' privacy rights protected
- **Educational Tests, Survey or Interview Procedures, or Observation of Public Behavior Not Exempt in Previous Category if: subjects are public officials or public office candidates federal statute requires confidentiality without exception**

## **Research Involving Human Subjects**

### **Areas of exemption**

- **Collection or Study of Existing Data, Documents, Records, Pathological Specimens**
  - information publicly available
  - subjects not identified
- **Research and Demonstration Projects Regarding Certain Public Benefit or Service Programs**
- **Taste and Food Quality Evaluation and Consumer Acceptance Studies Using**
  - foods without additives
  - U.S. Government approved food ingredient



## ***Inclusion of Women and Minorities in Clinical Research***

- **Women and Minorities** must be considered for inclusion in all clinical research supported by NIH

**or**

- **Appropriate justification** must be provided to explain why they are not included in the proposed research

## ***Research Involving Children***

**Children must be considered for inclusion in all human subject research supported by NIH**

**or**

**Appropriate justification** must be provided to explain why they are not included in the proposed research

## ***Research Involving Children***

**Children must be considered for inclusion in all human subject research supported by NIH**

**Effective for all new applications received after October 1, 1998**

- **Child is defined as an individual under age 21**
- **If children are included, Investigator must address**
  - **age range**
  - **expertise of investigative team**
  - **facilities**
  - **sufficient numbers**

## ***Research Involving Children***

- **If children are not included, must justify exclusion:**
  - **Topic irrelevant to children**
  - **Laws/regulations bar inclusion of children**
  - **Knowledge already available or being obtained**
  - **Separate study warranted**
  - **Unable to judge potential risk to children**
  - **Collecting data on pre-enrolled adults**
  - **Other special cases**

## ***Vertebrate Animals***

### **Important Considerations**

- Will the anticipated results be for the good of society?
- Will the work be planned and performed by qualified scientists?
- Will the animals be treated so as to avoid any unnecessary discomfort, pain, anxiety, or poor health?
- Species chosen?
- Animals in short supply?

## ***Scientific Review Group or Study Section Actions***

- Scored, Scientific Merit Rating
- Priority scores:
  - 1 (best) to 5 (poorest) and percentiles
- Unscored (lower half)
- Deferral

## ***Summary Statement***

**After the review meeting is finished, the results are documented by the SRA in a summary statement and forwarded to the PI and to the assigned NIH Institute. The assigned NIH Institute is responsible for making a funding decision.**

**The summary statement contains:**

- **Overall Resume and Summary of Review Discussion**
- **Essentially Unedited Critiques of Assigned Reviewer**
- **Priority Score and Percentile Ranking**
- **Budget Recommendations**
- **Administrative Notes**

## ***National Advisory Council or Board Review***

## ***Council Actions***

- **Assesses Quality of SRG Review**
- **Concurs with study section action**  
**or**
- **Modifies SRG (study section) action**  
**Can not change priority score**
  - **Deferral for re-review of the same application – no changes allowed**
- **Makes Recommendation to Institute Staff on Funding, Evaluates Program Priorities and Relevance and Advises on Policy**

## **NIH Policy does NOT allow Rebuttal of Peer Review outcome**

**There is an Appeal process however  
Differences of Scientific Opinion Can  
NOT be Appealed!**

**NIH policy permits appeal of review  
outcome if**

- 1. Procedural error in review process**
- 2. Factual errors (not differences of interpretations or understanding)**

## REVISE & RESUBMIT Do Not Appeal Review Outcome

### NIH Appeal Outcomes:

1. Council Denies Appeal (**bad outcome**)
2. Council Accepts Appeal: Original Application and Letter of Appeal is sent to the Same Study Section for a second examination and evaluation (**bad outcome**)
3. Council Accepts Appeal: Original Application be sent to a new Study Section but without the Letter of Appeal (**bad outcome**)

### Timeline Consequences

	Best Way	Revision	Appeal
Submit	Feb 04	Feb 04	Feb 04
Review	June 04	June 04	June 04
Council	Sept 04	Sept 04	Sept 04
Earliest award	Dec 04		
Review 2			Oct 04
Council 2			Jan 05
Earliest Resubmission		March 05	
Earliest Award			<del>Apr 05</del>
Review 2		June 05	
Earliest Resubmission			July 05
Council 2		Sept 05	
Review 3			Oct 05
Earliest Award		Dec 05	
Council			Feb 06
Earliest Award			<del>June 06</del>

## ***What Determines Which Awards Are Made?***

- **Scientific merit +**
- **Program Considerations +**
- **Availability of funds**

**You do not want a reviewer to make  
this comment about your application:**

***“This application is characterized by  
ideas that are both original and  
scientifically important. Unfortunately  
the ideas that are scientifically  
important are not original and the  
ideas that are original are not  
scientifically important.”***

**You do not want a reviewer to make this comment about your application:**

***“In addition to proposing a research design that is a fishing expedition, the applicant also proposes to use every type of bait and piece of tackle ever known to mankind.”***

**The research that you propose in your application must be innovative and focused**



# NIH Information Sources

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## **NIH GUIDE**

## ***for Grants and Contracts***

*U.S. Department of Health and Human Services*

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- **Announces NIH Scientific Initiatives**
- **Provides NIH Policy and Administrative Information**
- **Available on the NIH Web Site :**  
**<http://www.nih.gov>**  
**<http://grants.nih.gov/grants/guide/index.html>**


U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
National Institutes of Health

<http://crisp.oit.nih.gov>

CRISP - A Database of Biomedical Research Funded By the National Institutes of Health (NIH)

File Edit View Favorites Tools Help

Address <http://crisp.oit.nih.gov/>



Go to CRISP Query Form

**ERA Commons**  
*Computer Retrieval of Information on Scientific Projects*

.... CRISP Interface, VERSION 2.0 IS AVAILABLE, as of 1/3/2002! ....

CRISP (Computer Retrieval of Information on Scientific Projects) is a searchable database of federally funded biomedical research projects conducted at universities, hospitals, and other research institutions. The database, maintained by the Office of Extramural Research at the National Institutes of Health, includes projects funded by the National Institutes of Health (NIH), Substance Abuse and Mental Health Services (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDCP), Agency for Health Care Research and Quality (AHRQ), and Office of Assistant Secretary of Health (OASH). Users, including the public, can use the CRISP interface to search for scientific concepts, emerging trends and techniques, or identify specific projects and/or investigators. Below you will be able to access additional general information about the CRISP database, as well as obtain answers to questions frequently asked about CRISP. In addition, this home page serves as the gateway to interactive searching of Award Information. From here, you may select from the following list to acquire further information about CRISP.

- [General CRISP Description and Information](#)
- [Frequently-Asked-Questions \(FAQ\)](#)
- [CRISP Release Notes](#)

ICs Rosters Index - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://era.nih.gov/roster/index.cfm>

Review Administrator.

**Important Notice Of NIH Policy To All Applicants:** All rosters are provided for information purposes only. Applicant investigators must not communicate directly with any review group member about an application either before or after the review. Failure to observe this policy strictly will create serious breaches of confidentiality and conflicts-of-interest in the peer review process. All questions must be directed to the Scientific Review Administrator in charge of the review group. The roster below is a working document and should not be considered as complete until the meeting date. A final and complete roster will be provided with the summary statement.

AWARDING INSTITUTE AND CENTER STANDING COMMITTEE  
ROSTER INDEX

Roster Information	Committee Name
<a href="#">CSR</a>	Center For Scientific Review CSR STANDING COMMITTEES
<a href="#">NCIA</a>	National Cancer Institute SUBCOMMITTEE A - CANCER CENTERS
<a href="#">NCIC</a>	National Cancer Institute SUBCOMMITTEE C - BASIC & PRECLINICAL
<a href="#">NCID</a>	National Cancer Institute SUBCOMMITTEE D - CLINICAL STUDIES
<a href="#">NCIE</a>	National Cancer Institute SUBCOMMITTEE E - CANCER EPIDEMIOLOGY, PREVENTION & CONTROL
<a href="#">NCIF</a>	National Cancer Institute SUBCOMMITTEE F - MANPOWER & TRAINING
<a href="#">NCIG</a>	National Cancer Institute SUBCOMMITTEE G - EDUCATION
<a href="#">NCH</a>	National Cancer Institute SUBCOMMITTEE H - CLINICAL GROUPS
<a href="#">RIRGC</a>	National Center For Research Resources COMPARATIVE MEDICINE REVIEW COMMITTEE
<a href="#">RIRGG</a>	National Center For Research Resources CLINICAL RESEARCH REVIEW COMMITTEE

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## Learn the mission of the study section !

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Bookmarks Location: http://www.csr.nih.gov/review/igdesc.asp

### AIDS and Related Research 1 [AARR-1] Study Section

[\[AARR-1 Roster\]](#)

The AIDS and Related Research 1 [AARR-1] Study Section reviews applications focused on the molecular, structural, and cellular biology of HIV and related lentiviruses/retroviruses. These areas of research encompass studies on the biochemistry and genetics of HIV and viral infection, replication, and regulation. This Study Section also reviews applications related to viral aspects of pathogenesis, non-immune host responses and factors, and identification of viral/host targets for gene-based and other therapeutics and diagnostics.

**Specific areas covered by AARR-1:**

- Molecular biology, cell biology, and virology of HIV and related lentiviruses
- Molecular basis of lentiviral pathogenicity
- Biochemistry of HIV and related lentiviruses
- Regulation of viral and cellular biochemical processes, including tissue-specific effects of HIV
- Role of host gene products in virus infection and replication
- Variation in host factors and impact on virus infection and replication
- Mechanism of action and structure-function studies of viral proteins, including regulatory, enzymatic, and structural gene products

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CSR Meeting Rosters - Netscape

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Bookmarks Location: sr.nih.gov/Committees/Pre5eplIndex.asp?Agenda=96837&NABBR=AARR&NFLEX=1&START1=6/23/2002&END1=6/24/2002&Group1=01

CENTER FOR SCIENTIFIC REVIEW  
SPECIAL EMPHASIS PANEL  
**ZRG1 AARR-1 (01)**  
6/23/2002-6/24/2002  
MEETING ROSTER

**CHAIRPERSON**

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NORTHWESTERN UNIVERSITY  
MEDICAL SCHOOL  
CHICAGO, IL 60611

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NEW YORK AT BINGHAMTON

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# Learn about special funding opportunities !

NIH Research Training Opportunities: Extramural Training Mechanisms - Netscape

Office of Extramural Research

## NIH Research Training Opportunities Extramural Training Mechanisms

**On This Page**

- [Awards by Career Level](#)
- [Career Development Aids](#)
- [Graduate Assistant Policies](#)
- [Special Populations](#)
- [Loan Repayment Programs](#)
- [Resources](#)

**On OER Site**

- [OER Home](#)
- [Welcome](#)
- [News](#)
- [NIH Guide](#)
- [Grant Topics](#)
- [Research Training](#)
- [Related Topics](#)

The training mechanisms below are listed by your level of professional development. Please choose the most appropriate option:

- Training Awards By Career Level**
  - [High School](#)
  - [Undergraduate \(College\) Opportunities](#)
  - [Research Training Support for Graduate and Medical Students](#)
  - [Postdoctoral Award Mechanisms](#) - For Doctoral Scientists in training.
- NIH Training and Career Development Awards**
  - [K Kiosk](#) - NIH Career Development Awards information, including [Career Award Wizard](#)
  - [National Research Service Award \(NRSA\)](#) Training Grants and Fellowships
  - International Career Opportunities:
    - [Fogarty International Center](#)
    - [Human Frontier Science Program](#)
    - [Short-Term Courses in Research Ethics \(T15\)](#)
- Policies Related to Graduate Research Assistants:**
  - [Policy on Graduate Student Compensation](#) (12/10/2001) - NIH Guide Notice indication that the maximum amount awarded by the NIH for the support of a graduate student supported by a research grant or a cooperative agreement is tied to the zero level National Service Award (NRSA) postdoctoral stipend in effect at the time the grant award is issued. See notice for more information.
- Programs for Special Populations**


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# Learn about special funding opportunities !

NIH Extramural Training: K Kiosk - Information about NIH Career Development Awards - Netscape

Office of Extramural Research

## K Kiosk - Information about NIH Career Development Awards



[Career Award Wizard](#) - Helps you select the right career award

**Additional K Award Information:** [Award Data](#)

Program	Description
<a href="#">K01</a>	<a href="#">Mentored Research Scientist Development Award</a> Career development in a new area of research. 3-5 yrs; Salary determined by the sponsoring Institute.
<a href="#">K02</a>	<a href="#">Independent Scientist Award</a> Develop the career of the funded scientist. 5 yrs, 75% effort.
<a href="#">K05</a>	<a href="#">Senior Scientist Award</a> For outstanding scientists with a sustained level of high productivity. 5 yrs; 75% effort; Funding determined by the sponsoring Institute
<a href="#">K07</a>	<a href="#">Academic Career Award</a> Developmental/Leadership in academic instruction, research, administration. 2-5 yrs, 25-75% effort, requires institutional sponsorship.
<a href="#">K08</a>	<a href="#">Mentored Clinical Scientist Development Award</a> Development of the independent clinical research scientist. 3-5 yrs, 75% effort.

## Program Announcements are very important for you

- Invites grant applications in a given research area
- May describe new or expanded interest in a particular extramural program
- May be a reminder of a continuing interest in a particular extramural program
- Generally has no funds set aside
- Applications reviewed in CSR along with unsolicited grant applications

## Requests for Applications (RFA) are very important for you

- Announcement describing an institute initiative in a well-defined scientific area
- Invitation to submit research grant applications for a one-time competition on a specific topic
- *Set-aside of funds for a certain number of awards*
- Applications generally reviewed within the issuing institute

## Selected Sites of Interest

- **National Institutes of Health**  
<http://www.nih.gov>
- **Office of Extramural Research**  
<http://www.nih.gov/grants/oer.htm>
- **Grants Policy**  
<http://www.nih.gov/grants/policy/policy.htm>
- **NIH Study Section Rosters**  
<http://era.nih.gov/roster/index.cfm>

- **Office of Extramural Research: Grants Page**  
<http://grants1.nih.gov/grants/index.cfm>
- **Center for Scientific Review**  
<http://www.csr.nih.gov>
- **Referral and Review**  
<http://www.csr.nih.gov/refrev.htm>
- **Overview of Peer Review Process in CSR**  
<http://www.csr.nih.gov/review/peerrev.htm>
- **NIH Peer Review Notes**  
<http://www.csr.nih.gov/prnotes/prnotes.htm>

## Office of Extramural Research

- Handles requests for grant applications, program guidelines, general information on grant applications and review policy

Office of Extramural Research  
National Institutes of Health  
6701 Rockledge Drive, Suite 6095  
Bethesda, Maryland 20892-7910

**PHONE:** 301-435-0714

**FAX:** 301-480-0525

**e-mail:** [grantsinfo@nih.gov](mailto:grantsinfo@nih.gov)



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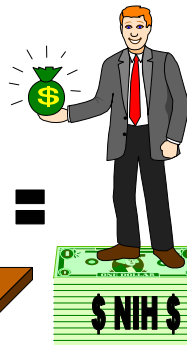
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# NIH GRANTS\$

## Formula for Grant Success

# Good Grantsmanship

## \*Knowing + Understanding

- What to do
- How to do it
- When to do it
- What to do when things don't go as planned

## \*Being willing to do what is needed

## \*Doing it- doing what is needed

## Understanding Peer Review



*Thank You*

[http://ora.stanford.edu/ora/ratd/nih\\_04.asp](http://ora.stanford.edu/ora/ratd/nih_04.asp)