Peer Review of NIH Research Grant Applications

Anthony M. Coelho, Jr., Ph.D.
Dr.Coelho@Lycos.com
Grant Success Associates

Experience:
- NIH Review Policy Officer 8 years
- Chief - Clinical Studies and Training Section NIHBI and Scientific Review Administrator 7 years
- 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 2009 Budget
29.5 Billion

~26 Billion for Research

FY 2009 NIH BUDGET AUTHORITY:
$29.5 BILLION

Rule #1
DO NOT write the application for Yourself unless you are going to fund it yourself

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

SF424 Forms

Electronic Forms and Instructions
NIH GRANT$ Formula for Grant Success

- Good Ideas
- Good Timing
- Good Presentations
- Good Reviewers
- Good Luck
- Good Grantsmanship

Elements of Grant Success

*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 Acceptance

*Doing it- doing what is needed
- Commitment and Completion

* Understanding Peer Review
The “other” method of applying for grant funds

Understanding NIH Peer Review
Not Funded
Grant Award $
1st Level Review

- Standing study section typically has 12-24 members
- 3 face-to-face meetings each year
- Review 60 - 100 applications at each meeting

View the “Mock Study Section” video today and tomorrow.

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 75,000+ grant applications are submitted to NIH each year,
- 10-20% are funded (Institute specific)
- Competing grant applications are received for three review cycles per year

---

**Timeline: New Applications**

<table>
<thead>
<tr>
<th>Receipt Date</th>
<th>Scientific Review</th>
<th>Council Review</th>
<th>Award Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 5</td>
<td>July</td>
<td>October</td>
<td>December</td>
</tr>
<tr>
<td>June 5</td>
<td>October</td>
<td>January</td>
<td>April</td>
</tr>
<tr>
<td>October 5</td>
<td>March</td>
<td>May</td>
<td>July</td>
</tr>
</tbody>
</table>

---

**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 5: 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

(See 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**

- Research Project Grant (R01)
- Postdoctoral Fellowship (F32)
- Fogarty International Center Fellowship (F08, F06)
- Short-Term Training (T35)
- Small Business Grants (R41, R42, R43, R44)
- Academic Research Enhancement Award (R15)
- Biomedical Research Support Shared Instrumentation Grant (S10)

**Institutes**

- Program Project Grant (P01)
- Center Grant (P30, P50, P60)
- Institutional Fellowship (T32)
- Academic Career Award (K07)
- Mentoed 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

<table>
<thead>
<tr>
<th>Individual Research Grant</th>
<th>Serial Number</th>
<th>Amended</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 R01 CA 123456 01 A1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assign to Institute
New Application
National Cancer Institute
Grant Support Year

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:


as these requirements will affect the priority score on your application.
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/SRO) 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/Officer**
- Recruits and selects reviewers
- Insures that the review 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

**Other NIH Staff Observers**
- Program Administrators
- Grants Technical Assistants
- Grant Management Specialist
- Other Federal Staff

---

**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 ASSIGN 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 (FACA 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

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 and training 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.

---

**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

---

**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?

PHS424

1. Description of proposed use of animals in the work outlined in Research Design and Methods section. Identify species, strains, ages, sex, and numbers of animals used
2. Justify use of animals, choice of species, and numbers used. If in short supply, costly, or used in large numbers, provide additional rationale for their selection and numbers.
3. Provide information on the veterinary care of the animals involved.
4. Describe procedures for ensuring that discomfort, distress, pain, and injury will be limited to that which is unavoidable in the conduct of scientifically sound research. Describe use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices, where appropriate, to minimize discomfort, distress, pain, and injury.
5. Describe any method of euthanasia used and reasons for selection. State whether method is consistent with recommendations of the Panel on Euthanasia of the American Veterinary Medical Association. If not, present a justification for not following the recommendations.
Scientific Review Group or Study Section Actions

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

What do the Scores Mean?

Scored Application

1.0-1.5 (100 - 150) OUTSTANDING
1.5-2.0 (150 - 200) EXCELLENT
2.0-3.0 (200 - 300) GOOD
3.0-5.0 (300 - 500) BELOW AVERAGE

STREAMLINED
Unscored APPLICATIONS
3.0-5.0 (300 to 500) BOTTOM HALF
New Scoring System

- effective for all applications submitted after January 25, 2009
- The new scoring system will utilize a 9-point rating scale (1 = exceptional; 9 = poor).


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

<table>
<thead>
<tr>
<th>Action</th>
<th>Best Way</th>
<th>Revision</th>
<th>Appeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit</td>
<td>Feb 08</td>
<td>Feb 08</td>
<td>Feb 08</td>
</tr>
<tr>
<td>Review</td>
<td>June 08</td>
<td>June 08</td>
<td>June 08</td>
</tr>
<tr>
<td>Council</td>
<td>Sept 08</td>
<td>Sept 08</td>
<td>Sept 08</td>
</tr>
<tr>
<td>Earliest award</td>
<td>Dec 08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review 2</td>
<td></td>
<td>March 09</td>
<td>Oct 08</td>
</tr>
<tr>
<td>Council 2</td>
<td></td>
<td>June 09</td>
<td>Jan 09</td>
</tr>
<tr>
<td>Earliest Resubmission</td>
<td></td>
<td>Sept 09</td>
<td>A 09</td>
</tr>
<tr>
<td>Earliest Award</td>
<td></td>
<td></td>
<td>A 09</td>
</tr>
<tr>
<td>Review 3</td>
<td></td>
<td>Oct 09</td>
<td>July 09</td>
</tr>
<tr>
<td>Council</td>
<td></td>
<td></td>
<td>Oct 09</td>
</tr>
<tr>
<td>Earliest Award</td>
<td></td>
<td>Dec 09</td>
<td>Feb 10</td>
</tr>
<tr>
<td>Earliest Award</td>
<td></td>
<td></td>
<td>Jul 10</td>
</tr>
</tbody>
</table>

### 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
• Announces NIH Scientific Initiatives
• Provides NIH Policy and Administrative Information
• Available on the NIH Web Site:
  http://www.nih.gov
Learn about special funding opportunities!

Additional Award Information

http://grants1.nih.gov/grants/news.htm

What is Grants.gov?

- A cross-agency initiative involving
  - 900 grant programs
  - 26 grant-making agencies
  - Over $350 billion in annual awards
- The Federal government's single, online portal for any person, business, or State, Local and Tribal government to electronically:
  - Find Grant Opportunities
  - Apply for Grants
Why SF424 application forms?

- SF424 consolidates forms currently used by Federal grant-making agencies
  - Applicants can use standard forms regardless of the program or agency to which they are applying
  - Reduces administrative burden on the Federal grants community
- SF424 (R&R) is the government-wide data set for research grant applications

Getting Started – Registration

Grants.gov Registration
- One-time only registration good for electronic submission to all Federal agencies
- Registration on Grants.gov required only for institutions
- Detailed instructions at: http://grants.gov/GetStarted
- Grants.gov registration requires institutions to:
  - Obtain a Data Universal Numbering System (DUNS) number – if you don’t already have one.
  - Register in Central Contractor Registry (CCR) – if you haven’t already.

It is critical for institutions to begin this registration process at least 4 weeks before applications are due!

NIH eRA Commons Registration
- Allows NIH to receive applications electronically from Grants.gov and validate them against NIH business rules
- Provides a way for NIH and registered users to communicate electronically after submission
- Both organizations and PIs need to register
- One time only registration, detailed instructions at: https://commons.era.nih.gov/commons

It is critical for institutions to begin this registration process at least 4 weeks before applications are due!
Where to find more information

- NIH eRA's Electronic Receipt Web Site: http://era.nih.gov/ElectronicReceipt/
  - Note: An expanded presentation is posted on this website for institutions to use to help spread the word about these important changes.

Where to go for help

- Questions on NIH plan for electronic receipt
  - NIH GrantsInfo.gov
  - E-mail: grantsinfo@nih.gov
  - NIH eRA Commons registration and questions
    - Help Desk
      - E-mail: commons@od.nih.gov
      - Phone: 1-866-504-9552 OR 301-402-7469
    - Grants.gov registration and submission questions

Other Resources/Links

- PHS 398 Application (form pgs are PDF-fillable): http://grants1.nih.gov/grants/funding/phs398/phs398.html
- PHS2590 Progress Report (form pgs are PDF-fillable): http://grants.nih.gov/grants/funding/2590/2590.htm
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
- Office of Extramural Research
- Grants Policy
- NIH Study Section Rosters
- Grant Application Basics
  [http://grants.nih.gov/grants/grant_basics.htm](http://grants.nih.gov/grants/grant_basics.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

Grant Success Associates

Office of Extramural Research

- 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

NIH GRANT$ 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
  • Passion and Acceptance

• Doing it - doing what is needed
  • Commitment and Completion

• Understanding Peer Review

Thank You

http://ora.stanford.edu/ora/ratd/nih_04.asp

Dr. Coelho@Lycos.com