


**YOUR COMPETITIVE ADVANTAGE
SUCCESSFUL PROPOSAL DEVELOPMENT
WORKSHOP**

**ENHANCING PEER REVIEW
AND
YOUR COMPETITIVENESS**

Peter R. Jackson, Ph.D.
Chief, AIDS Research Review Branch
Scientific Review Program
National Institute of Allergy and Infectious Diseases
National Institutes of Health

February 27, 2010




**SUCCESSFUL PROPOSAL DEVELOPMENT
WORKSHOP**

**ENHANCING PEER REVIEW & YOUR
COMPETITIVENESS**

Today's Topics

- ◆ Enhancing Peer Review
- ◆ Hallmarks of Successful Applications
- ◆ Hallmarks of Successful Applicants
- ◆ Information and Internet Resources




**SUCCESSFUL PROPOSAL DEVELOPMENT
WORKSHOP**

**ENHANCING PEER REVIEW & YOUR
COMPETITIVENESS**

Enhancing Peer Review at NIH Web Site

- ◆ <http://enhancing-peer-review.nih.gov>
 - + Latest Status
 - + Timelines
 - + Related Policy Changes
 - + Frequently Asked Questions
 - + Training and Communication Resources




**SUCCESSFUL PROPOSAL DEVELOPMENT
WORKSHOP**

**ENHANCING PEER REVIEW & YOUR
COMPETITIVENESS**

Enhancing Peer Review: Overview and Timeline

January 2009	May/June 2009 Reviews	January 25, 2010 Submissions
<ul style="list-style-type: none"> ◆ Phase out of A2 applications ◆ Identification of Early Stage Investigator (ESI) applications <p>NOT-OD-08-121 NOT-OD-09-003</p>	<ul style="list-style-type: none"> ◆ Enhanced review criteria ◆ New scoring system ◆ Criterion scoring ◆ Structured critiques ◆ Clustering of New Inv. Applications ◆ Score order review <p>NOT-OD-09-024 NOT-OD-09-025</p>	<ul style="list-style-type: none"> ◆ Restructured Applications & Instructions ◆ Shorter Page Limits <p>NOT-OD-09-149</p>




**SUCCESSFUL PROPOSAL DEVELOPMENT
WORKSHOP**

**ENHANCING PEER REVIEW & YOUR
COMPETITIVENESS**

January 2009

- ◆ New Policy on Resubmissions
- ◆ Identification of Early Stage Investigator (ESI) Applications
 - + http://grants.nih.gov/grants/new_investigators/
 - + Early Stage Investigator: A Program Director/Principal Investigator who qualifies as a New Investigator is considered an Early Stage Investigator (ESI) if he/she is within 10 years of completing his/her terminal research degree or is within 10 years of completing medical residency (or the equivalent)




**SUCCESSFUL PROPOSAL DEVELOPMENT
WORKSHOP**

**ENHANCING PEER REVIEW & YOUR
COMPETITIVENESS**

Goals of New Resubmission Policy

- ◆ Fund meritorious science earlier
- ◆ Enhance success rates of new and resubmitted applications by decreasing the number of allowed grant application resubmissions (amendments) from two to one




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

New Resubmission Policy

- ◆ NIH accepts only a single amendment to the original application
 - + Original new applications (i.e., never submitted)
 - + Competing renewal applications




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Early Stage Investigator (ESI) Policy

- ◆ NIH will support New Investigators at success rates comparable to those for established investigators submitting new applications
- ◆ ESIs will comprise a majority of the NIs supported (FY 2009 funding and beyond)
- ◆ To ensure appropriate consideration for ESI eligibility, all NIs will need to update their eRA Commons profiles, and will now see their eligibility displayed in eRA Commons.




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Goals of Identifying Early Stage Investigators (ESIs)

- ◆ Encourage transition to independence for investigators
- ◆ Counter trend of increasing time spent in training phase of career
- ◆ Strongly encourage New Investigators (NIs), particularly ESIs, to apply for R01 grants when seeking first-time NIH funding




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Early Stage Investigator (ESI) Implementation

- ◆ Beginning with the traditional R01 grant applications received for the February 5, 2009 receipt dates, NIH will identify grant applications from NIs and ESIs
- ◆ NI and ESI applications will be clustered for review beginning with the May 2009 review meetings




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Changes to Review May/June 2009

- ◆ Enhanced Review Criteria
 - + Significance, Investigator(s), Innovation, Approach, Environment
- ◆ Templates for Structured Critiques
- ◆ Scoring of Individual Review Criteria
- ◆ New 1-9 Scoring Scale




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Enhanced Review Criteria


- ◆ Enhancing Peer Review: The NIH Announces Enhanced Review Criteria for Evaluation of Research Applications Received for Potential FY2010 Funding NOT-OD-09-025.htm
- ◆ <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-025.html>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
Goals of the Changes


- ◆ Clearer understanding of the basis of application ratings
- ◆ More emphasis on impact and less emphasis on technical details
- ◆ Succinct, well-focused critiques that evaluate, rather than describe, applications
- ◆ Routine use of the entire rating scale



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
Score the 5 Review Criteria


- ◆ Five “core” criteria for most types of grant applications
- ◆ Example: Core criteria for R01s are
 - + Significance
 - + Investigator(s)
 - + Innovation
 - + Approach
 - + Environment
- ◆ 9-point scale (1 = exceptional, 9 = poor) for the five “core” review criteria



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
Additional Review Criteria


- ◆ Reviewers consider the following additional items in the determination of scientific and technical merit, but will not give separate scores for these items
 - + Protections for Human Subjects
 - + Inclusion of Women, Minorities, and Children
 - + Vertebrate Animals
 - + Resubmission Applications
 - + Renewal Applications
 - + Revision Applications
 - + Biohazards



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
Additional Review Considerations

- ◆ Reviewers address each of the following items, but will not give scores for these items and should not consider them in providing an overall impact score
 - + Budget and Period Support
 - + Select Agent Research
 - + Applications from Foreign Organizations
 - + Resource Sharing Plans




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
Scoring Descriptions

Impact	Score	Descriptor	Additional Guidance on Strengths/Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
	5	Good	Strong but with at least one moderate weakness
	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses

Non-numeric score options: NR = Not Recommended for Further Consideration, DF = Deferred, AB = Abstinence, CF = Conflict, NP = Not Present, ND = Not Discussed


Minor Weakness: An easily addressable weakness that does not substantially lessen impact
Moderate Weakness: A weakness that lessens impact
Major Weakness: A weakness that severely limits impact



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
Before the Review Meeting

- ◆ Reviewers address all applicable criteria and other review considerations
- ◆ Identify major strengths and weaknesses
- ◆ Score the 5 review criteria (1 - 9)
- ◆ Assign an overall impact/priority score (1 - 9)
- ◆ Post critiques to the Internet-Assisted Review (IAR) Web site
- ◆ Enter criterion scores and overall/priority score in IAR




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Critique Templates

- ◆ Boxes for evaluating:
 - + Each core review criterion
 - + Other applicable review criteria and considerations
 - + Overall impact of the application
 - + A box for “advice to applicants”
- ◆ Hyperlinks to web pages providing descriptions of review criteria and additional review considerations




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Preparation of Critiques

- ◆ Reviewers provide bulleted points to make succinct, focused comments
- ◆ Short narratives also may be appropriate
- ◆ Focus is on major strengths and weaknesses that affect the overall rating of the application




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Procedure for Discussed Applications

- ◆ Assigned reviewers discuss strengths and weaknesses of each application
 - + Recommend overall impact/priority score
 - + Criterion scores not discussed
- ◆ All eligible members will record an overall impact/priority score (as is presently true)




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

After the Review Meeting

- ◆ To justify the overall impact/priority score
 - + Assigned reviewers whose opinions changed as a result of discussion at the meeting use IAR
 - ▶ To modify their criterion scores
 - ▶ To post revised critiques




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Summary Statements

- ◆ Overall impact/priority scores of discussed applications are the mean of scores voted by all eligible reviewers, multiplied by 10
- ◆ Final scores range from 10-90, in whole numbers
- ◆ Summary statements for ALL applications include the criterion scores and critiques posted by assigned reviewers




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Impact Is Different from Significance

- ◆ **Overall Impact:**
 - + Reviewer assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the five core review criteria, and additional review criteria (as applicable for the project proposed)



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Impact Is Different from Significance (cont.)

- ◆ **Significance:**
 - + Does the project address an important problem or critical barrier to progress in the field?
 - + If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
 - + How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
- ◆ <http://nexus.od.nih.gov/nexus/nexus.aspx?ID=379&Month=02&Year=2010>

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Restructured Application Forms

- ◆ Align the structure and content of the forms with review criteria
 - + To focus the applicants and reviewers on the same elements
 - + To help ensure a more efficient and transparent review process

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Overview of the Changes

- ◆ Application forms revised in three sections
 - + Research Plan
 - + Biographical Sketch
 - + Resource and Facilities

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

New Research Plan Components

- ◆ Introduction
- ◆ Specific Aims
- ◆ *Background and Significance*
- ◆ *Preliminary Studies/Progress Report*
- ◆ *Research Design and Methods*
- ◆ Inclusion Enrollment Report
- ◆ Progress Report Publication List
- ◆ Human Subjects Sections....
 - + Protections, women/minorities, enrollment, children
- ◆ Other Research Plan Sections....
 - + Animals, select agents, MPI, consortium, support, resource sharing
- ◆ Appendix

} *Research Strategy*

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

New Research Strategy Section

Current Application	New Application
Background and Significance	Research Strategy a. Significance b. Innovation c. Approach • Preliminary Studies for New Applications • Progress Report for Renewal/Revision
Research Design and Methods	
Preliminary Studies/Progress Report	

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP


ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Revisions to Address Environment

- ◆ Instructions added to Resources:
 - + Provide a description of how the scientific environment will contribute to the probability of success of the project
 - + For ESIs describe the institutional investment in the success of the investigator
- ◆ Instructions added to Research Plan
 - + In Select Agents Research section, describe the biocontainment resources available at all performance sites


SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
 Applications Are Shorter

- ◆ http://enhancing-peer-review.nih.gov/page_limits.html



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
 Shortened Page Limits


- ◆ Reduce the administrative burden
- ◆ Focus on the essentials of the science
- ◆ Avoid information overload



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
 Page Limit Revisions


Current Page Limit (Section 2-5 of the Research Plan)	New Page Limit (Research Strategy)
<25	6
25	12
>25	Follow FOA Instructions

Note: Follow FOA page limit requirements if different from the application instructions.



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
 Table of Page Limits (Part I)


Section of Application with Page Limits	Page Limits
Introduction to Revision Application For all Activity Codes	1 page
Introduction to Resubmission Application For all Activity Codes, EXCEPT Training (T, D), K12, and R25	1 page
Introduction to Resubmission Application For Institutional Training (T), International Training (D43, D71), Institutional Career Awards (K12), and Research Education Applications (R25)	3 pages
Introduction to Revision or Resubmission Applications For each project and core of multi-component applications	1 page



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
 Table of Page Limits (Part II)

Section of Application with Page Limits	Page Limits
Specific Aims For all Activity Codes that use an application form with the Specific Aims section	1 page
Research Strategy For Activity Codes R03, R13/U13, R21, R36, R41, R43, Fellowships (F), SC2, SC3	6 pages
Research Strategy For Activity Codes R01, single project U01, R10, R15, R18, U18, R21/R33, R24, R33, R34, U34, R42, R44, DP3, G08, G11, G13, UH2, UH3, SC1	12 pages
Research Strategy For each project and core of multi-component applications, such as Program Project/Center (P)	Generally 6 or 12 pages**

**Each project or core will follow the page limit of the equivalent activity code



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
ENHANCING PEER REVIEW & YOUR COMPETITIVENESS
 Table of Page Limits (Part III)


Section of Application with Page Limits	Page Limits
Research Strategy For all other Activity Codes	Follow FOA instructions
Combined: Research Strategy and first four items of Candidate Information For Individual Career Development Award (K) Applications	12 pages
Items 2-5 of Research Training Program Plan For Institutional Career Development and Research Training Applications, including K12, T, D43, and D71	25 pages
Research Education Program Plan For Research Education Grant Applications (R25)	25 pages
Biographical Sketch For all Activity Codes except DP1 and DP2	4 pages
Biographical Sketch For DP1 and DP2	2 pages



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

WHY APPLICATIONS SUCCEED AND WHY APPLICANTS ARE SUCCESSFUL




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applications

- ◆ Strong Idea
- ◆ Strong Science
- ◆ Strong Team
- ◆ Strong Presentation
- ◆ Science appropriate for the NIH Institute
 - + Every IC has specific mission
- ◆ High-quality grant writing skills
 - + Communicate scientific content compellingly
 - + Follow all the instructions




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applications (cont.)

- ◆ **Applications Are Complete**
 - + Include everything called for in the instructions, the RFA or PA etc. as relevant
 - + Address ALL the review criteria
 - + Make your description (Abstract) understandable and complete (write it last!)
 - + Include everything necessary for reviewers to assess your work




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applications (cont.)

- ◆ **Applications Are Easy To Review**
 - + Present clear overall organization
 - + Be concise
 - + Make your application visually appealing
 - Charts, tables, diagrams, flow-charts
 - + Use appendices properly
 - + Cross-reference, label, number everything
 - + Write to the Review Criteria, in order




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applicants

- ◆ **Applicants Follow Instructions**
 - + Follow format and content guidelines
 - + Address all solicitation special requirements of award type or solicitation
 - + Know the deadlines
 - Special for AIDS, solicited applications (RFA, PA)
 - + Follow submission instructions




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applicants (cont.)

- ◆ **Applicants Don't Work In A Vacuum**
 - + Actively seek out collaborations
 - + Network widely
 - + Read a successful similar application (and its summary statement)
 - + Allow enough time for honest feedback from senior investigators




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applicants (cont.)

- ◆ **Applicants are Aware of Changes in Science and Policies**
 - + Read NIH home pages on WWW
 - + Communicate with Program Officers
 - + Stay in touch with your institution administration office / officer
 - + Communicate with Scientific Review Officers
 - + Communicate with Grants Management Officers




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Hallmarks of Successful Applicants (cont.)

- ◆ **Applicants Don't Give Up!!**
 - + Initial failure is common → it is the application not the person
 - + Learn from failed submissions and succeed → most do
 - + Study comments in Summary Statement
 - + Decide if problems are repairable
 - + Attend diligently to each comment
 - + Keep a positive tone and attitude
 - + "Outstanding" resubmitted application is the goal




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Why Bother with Collaborative Science?

- ◆ Collaborative Science is the "Norm"
- ◆ No one conducts modern science alone
- ◆ Leverage funds, knowledge, share results, benefit self and mankind
- ◆ Payoffs can be huge: 2 examples




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

HIV Chemotherapy

- ◆ The AIDS epidemic begins about 1983 when the US CDC reports pneumocystis pneumonia in patients later found to have AIDS
- ◆ Today, thanks to intensive research, there are more drug regimens for HIV/AIDS than any other infectious disease

These biomedical advances were based on the coordinated, collaborative efforts of thousands of researchers worldwide.




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Buckyballs / Fullerenes

- ◆ Harold W. Kroto, University of Sussex, studied chains of carbon atoms in deep outer space using molecular spectroscopy
- ◆ Richard Smalley of Rice University, Houston, Texas studied cluster molecules using a laser that vaporizes any known material into plasma
- ◆ Kroto knows Dr. Kurl of Rice who arranged a collaboration with Smalley to burn some carbon with the laser to simulate intense thermal conditions in space
- ◆ Kroto arrived at Smalley's lab on Sept. 1, 1985




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Buckyballs / Fullerenes (cont.)

- ◆ First experiment Sept. 11 - burn pure carbon
- ◆ Mass spectrometer result: Product was a molecule of 60 carbon atoms a new form of carbon!
- ◆ Smalley thinks it is a ball of 60 carbon atoms
- ◆ Paper published by "Nature" Sept. 14, 1985
- ◆ A short collaboration to study how carbon might burn in the distant universe led to the Nobel Prize for Kroto, Smalley and Kurl, jump started buckyball / fullerene chemistry, and sparked the nanotechnology industry



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

"This is where our trails divide, Luke. You have my E-mail address, right?"

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Concept Information

Peter R. Jackson, Ph.D.
 Chief, AIDS Clinical Review Branch
 Scientific Review Program
 National Institute of Allergy and Infectious Diseases/NIH/DHHS
 6700-B Rockledge Drive
 Rm. 3133, MSC 7616
 Bethesda, MD 20892-7616
 Phone: (301) 496-8426
 Fax: (301) 480-2408
pjackson@niaid.nih.gov

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

INFORMATION AND INTERNET RESOURCES

The following slides are resources in a number of areas. The information will help investigators to apply for funds or to administer them.

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Strategies for Funding Success

1. Understand NIH Funding – the science and initiatives of each IC. Map your research to IC interests. Interact with the Program Officers at different ICs.
2. Use “Report” to identify funding trends, potential collaborators and competition. <http://report.nih.gov/>

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Strategies for Funding Success (cont.)

3. Know the success rates of various grant types, at different institutes. Apply to favorable institutes. http://report.nih.gov/award/success/Success_ByActivity.cfm
4. Identify Institutes With Attractive Financial Policies <http://grants.nih.gov/grants/financial/index.htm#strategies>
5. Use Grants.gov, the NIH Guide, and Institute-specific search engines to identify all available funding opportunities

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Strategies for Funding Success (cont.)

6. Use “Concepts” for early news about FOAs. Each Institute Advisory Council approves “Concepts” for FOAs, 3 times a year. “Concepts” are posted on Institute Web sites after each Council meets. “Concepts” will be FOAs in about 2 years. You can plan application(s) years in advance! Interact with Program Officers while planning.
 NIAID Concept page:
<http://www.niaid.nih.gov/ncn/budget/in-main.htm>

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR Strategies for Funding Success (cont.)
COMPLETIVENESS

7. Try to include Institute provided resources in grant applications. Institutes have Resource Web sites. Some NIAID Resources are here:
<http://www3.niaid.nih.gov/LabsAndResources/resources/>

8. Improve collaborations. Use Web to Network and become more visible. A free Networking site is the Community of Science: <http://www.cos.com/>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR Strategies for Funding Success (cont.)
COMPLETIVENESS

9. Learn NIH processes for developing, submitting, reviewing applications.


10. Become a Reviewer. Submit CV to CSR Scientific Review Officers (SROs)
(<http://www.csr.nih.gov/committees/rosterindex.asp>) or to Institute SROs



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR Strategies for Funding Success (cont.)
COMPLETIVENESS

11. Use peer review committee information to your advantage. Identify the Scientific Review Panel that you want to evaluate your application. Prepare your application with the science focus of that review panel in mind. Request the CSR Office of Receipt and Referral to assign your application to that Review Panel. Review panel information
<http://cms.csr.nih.gov/peerreviewmeetings/csirrgdescriptionnew/>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR Strategies for Funding Success (cont.)
COMPLETIVENESS

12. Understand why applications succeed / fail

13. Revise applications carefully

- + Restate every criticism and answer each
- + Identify how you revised the application- make it easy for reviewers to find your "answers"
- + Be diplomatic and positive. Don't argue with reviewers.
- + Avoid an angry tone
- + Avoid overstating your data




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR Strategies for Funding Success (cont.)
COMPLETIVENESS

14. Use the RFA shuffle. Every unsolicited R type application (R03, R21, R01) can be submitted only twice (original and one resubmission (revision)). Since ideas are limited, minimize the problem

- a. Apply as an R21 (or R01), if not funded use critique to submit a strong R03 (or R21)
- b. Since responses to RFAs are considered NEW, apply against an RFA and use the evaluation to prepare a better unsolicited R series application
- c. Use variations of the above until funded




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR Strategies for Funding Success (cont.)
COMPLETIVENESS

15. Respond Carefully to Critiques - **One revision!**

- + Restate each criticism and how you revised the application in response- make it easy for reviewer to find your "answers"
- + Be diplomatic and positive. Don't argue with reviewers.
- + Avoid an angry tone
- + Avoid overstating your data



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Internet Resources

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Intellectual Property Reporting

http://era.nih.gov/services_for_applicants/reports_and_closeout/inTELlectual_property_reporting.cfm

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

OTT Department of Health and Human Services
NATIONAL INSTITUTES OF HEALTH
OFFICE OF TECHNOLOGY TRANSFER
SCIENCE. IDEAS. BREAKTHROUGHS.

http://www.ott.nih.gov/about_nih/about.aspx

The NIH Office of Technology Transfer (OTT)

The **NIH** Office of Technology Transfer evaluates, protects, markets, licenses, monitors, and manages the wide range of **NIH** and **FDA** discoveries, inventions, and other intellectual property as mandated by the Federal Technology Transfer Act and related legislation.

To accomplish its mission, OTT oversees patent prosecution and negotiates and monitors licensing agreements. OTT performs similar functions for patenting and licensing activities for the **Food and Drug Administration** (FDA), another component of the **Department of Health and Human Services** (HHS).

Other major functions within OTT include the development of **technology transfer policies** for NIH and with the other two major research components of HHS (FDA and the **Centers for Disease Control and Prevention** (CDC)) and the implementation of decisions by the Technology Transfer Policy Board.

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

All About Grants Tutorials

<http://www.niaid.nih.gov/ncn/grants/cycle/default.htm>

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

<http://www.niaid.nih.gov/ncn/grants/newpage10.htm>

National Institute of Allergy and Infectious Diseases
Leading research to understand, treat, and prevent infectious, immunologic, and allergic diseases.

NIAD Home | **Health & Science** | **Research Funding** | **Research** | **News & Events** | **Labs at NIAID** | **About NIAID**

NIAD Research Funding

NIAD Funding News

Opportunities and Announcements

Paylines and Funding

Grants

Application

Peer Review

Grant Award and Management

Early-Stage and New Investigators

Training and Career

RO1 Investigator Resources

What Award Should You Apply For?

As a new PI seeking independent funding, you should not necessarily ask for the smallest grant type. NIH uses dozens of grant types – large and small, simple and complex.

Do not choose an award type on your own. Read Which Award Type Suits You Best? in the NIH Grant Cycle and call a program officer for help.

Many people who have preliminary data apply for an RO1. Read What's an RO1? and Why You Should Consider an RO1 in this tutorial.

If you don't have preliminary data, you could apply for a Small Grant (R01) or Exploratory/Developmental Research Grant Award (R21) to pay for time and resources to collect the data needed for an RO1 application.

Do you have senior-level collaborators? Consider asking about applying as a subproject on their program project grant. You would not be an independent PI, but you would have your own project.

if you have sufficient preliminary data, apply for an RO1.

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

<http://www.niaid.nih.gov/ncn/grants/newpage10.htm>

National Institute of Allergy and Infectious Diseases
Leading research to understand, treat, and prevent infectious, immunologic, and allergic diseases.

NIAD Home | **Health & Science** | **Research Funding** | **Research** | **News & Events** | **Labs at NIAID** | **About NIAID**

NIAD Research Funding

NIAD Funding News

Opportunities and Announcements

Paylines and Funding

Grants

Application

Peer Review

Grant Award and Management

Early-Stage and New Investigators

Training and Career

New Investigator Guide to NIH Funding

Outlines strategies for gaining an NIH grant and explains basic funding concepts and processes to new and would-be principal investigators.

Tutorial Table of Contents

View the tutorial page-by-page, with illustrations.

Starting Out

- Getting to Know NIH
- Starting a Research Career
- Putting Grants in Context
- Perspective on Peer Review
- NIH's Mission – Why it Matters to You

Print Whole Document

- View or print the complete tutorial in a single file.

Translated Versions

- Translated Tutorials

Other Resources


- See our other All About Grants tutorials.
- Find answers to questions about application.

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

ERA Resources

- ◆ Overview of Electronic Submission
<http://era.nih.gov/ElectronicReceipt/>
- ◆ Frequently Asked Questions
<http://era.nih.gov/ElectronicReceipt/faq.htm>
- ◆ Avoiding Common Errors
http://era.nih.gov/ElectronicReceipt/avoiding_errors.htm
- ◆ Training Resources, Videos, Quick Reference Materials
<http://era.nih.gov/ElectronicReceipt/training.htm>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

HHS Websites

- ◆ Office for Human Research Protections (OHRP)
<http://www.hhs.gov/ohrp/>
- ◆ OHRP Institutional Review Board (IRB) or Independent Ethics Committee (IEC)
<http://www.hhs.gov/ohrp/assurances/>
- ◆ OHRP Assurances
http://www.hhs.gov/ohrp/assurances/assurances_index.html




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

NIH Websites

- ◆ National Institutes of Health
<http://www.nih.gov>
- ◆ Notice of Grant Award
http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part5.htm#_Toc54600106/
- ◆ NIH Grants Policy Statement
http://grants2.nih.gov/grants/policy/nihgps_2003/index.htm




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

NIH Websites

- ◆ NIH Grants and Funding Opportunities
<http://grants1.nih.gov/grants/index.cfm>
- ◆ NIH Guide to Grants and Contracts
<http://grants1.nih.gov/grants/guide/index.html>
- ◆ NIH Extramural Programs
<http://grants1.nih.gov/grants/oe.htm>
- ◆ Office of Laboratory Animal Welfare (OLAW)
<http://grants.nih.gov/grants/olaw/olaw.htm>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

NIAID Websites

- ◆ National Institute of Allergy and Infectious Diseases
<http://www.niaid.nih.gov/>
- ◆ NIAID Funding Page
<http://www3.niaid.nih.gov/researchfunding/>
- ◆ NIAID International Grants and Contacts
<http://www.niaid.nih.gov/ncn/grants/int/default.htm>
- ◆ Grant Application Basics
<http://funding.niaid.nih.gov/ncn/grants/cycle/default.htm>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

NIAID Websites

- ◆ Checklists for Applications
<http://www.niaid.nih.gov/ncn/grants/charts/checklists.htm>
- ◆ "All About Grants" Tutorials
<http://www.niaid.nih.gov/ncn/grants>
- ◆ Grants.gov
<http://www.grants.gov/>
- ◆ National Council of University Research Administrators
<http://www.ncura.edu/>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Research Support Funding Websites

- ◆ NIH Funding Opportunities Relevant to NIAID: <http://www.niaid.nih.gov/ncn/budget/opps.htm>
- ◆ National Science Foundation (NSF): <http://www.nsf.gov/>
- ◆ USDA CRIS (Current Research Information System): <http://cris.csrees.usda.gov>
- ◆ NSF FastLane: <https://www.fastlane.nsf.gov/fastlane.jsp>
- ◆ Centers for Research Libraries (includes dissertations): <http://www.crl.edu/catalog/index.htm>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Research Support Funding Websites (cont.)

- ◆ Scopus: <http://www.scopus.com/scopus/home.url>
- ◆ Fogarty International Center: <http://www.fic.nih.gov/funding/index.htm>
- ◆ Bill and Melinda Gates Foundation: <http://www.gatesfoundation.org/default.htm>
- ◆ The Wellcome Trust: <http://www.wellcome.ac.uk/>
- ◆ The Global Fund to Fight AIDS, Tuberculosis and Malaria: <http://www.theglobalfund.org/en/>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Collaborative Opportunity Websites

- ◆ NIH Intramural Database Resources (find a scientist working on related research interests): <http://intramural.nih.gov/search/index.tml>
- ◆ US National Library of Medicine's PubMed <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed>
- ◆ Research Portfolio Online Reporting Tool (RePORT): http://report.nih.gov/report_overview.aspx
- ◆ Industry and public research institutions responsible partnerships: <http://www.responsible-partnering.org/index.php>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Training Opportunity Websites

- ◆ NIH Intramural Research and Training Opportunities: <http://www.training.nih.gov/>
- ◆ NIH Postdoctoral Topics: <http://www.training.nih.gov/postdoctoral/>
- ◆ International Research Career Transition Programs: <http://www.training.nih.gov/postdoctoral/international.asp>
- ◆ Keystone Symposia Global Health Travel Awards: <http://www.keystonesymposia.org/Scholarships/GlobalHealth.h.cfm?ShowInfo=1>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Research Administration Websites

- ◆ National Council of University Research Administrators: <http://www.ncura.edu/>
- ◆ Johns Hopkins University School of Medicine of Research Administration: <http://hopkinsmedicine.org/Research/ora/>
- ◆ World Intellectual Property Association: <http://www.wipo.int/portal/index.html.en>
- ◆ European Association of Research Managers and Administrators: <http://www.earma.org/>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

Information Technology at the NIH

<http://cit.nih.gov/>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

<http://cit.nih.gov/Science/Competitiveness>

CIT CENTER FOR INFORMATION TECHNOLOGY NATIONAL INSTITUTES OF HEALTH

Back to: CIT Home • Science

SCIENCE

- Collaborative Research
- Computational SIGs
- General Scientific Support
- Partnerships
- Projects
- Publications
- Research Studies
- Supercomputing
- Tools & Resources

Collaborative Research

- Biomedical Imaging
- Biomedical Informatics
- Biomedical Instrumentation
- Computational Methods and Parallel Computing
- Mathematical and Statistical Analysis
- Molecular Modeling
- Telemedicine

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

<http://cit.nih.gov/Science/Partnerships>

Back to: CIT Home • Science

SCIENCE

- Collaborative Research
- Computational SIGs
- General Scientific Support
- Partnerships
- Projects
- Publications
- Research Studies
- Supercomputing
- Tools & Resources

Partnerships

The [Division of Computational Bioscience \(DCB\)](#) has a variety of collaborative research activities with many intramural research organizations at the National Institutes of Health (NIH), including other Federal Agencies, and Educational and Research Organizations. The followings are some of our collaborative research partners at NIH: CC, CSR, FDA, FIC, NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NLM, OD, ORS.

DCB is committed to bring the latest biomedical technologies to the private sector through a Cooperative Research and Development Agreement (CRADA).

Contact [Benas Trus, Ph.D](#) for questions and comments about DCB and its collaborative research programs, and to learn about CRADA and available biomedical technologies.

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

<http://grants.nih.gov/grants/financial/index.htm>

NIH Extramural Financial Operations

On This Page:

- Introduction
- General Resources
- Resources for FY 2009
- Resources for FY 2008
- FY 2009 Funding Strategies
- Financial Operations Archive
- Contact

Introduction

Welcome to the NIH's Financial Operations Website. On this page you will find the most recent information at year, links to the financial management plans of NIH institutes and centers, and answers to frequently asked. We hope that you will find the information on this site helpful.

General Resources

- NIH Office of Budget - with current and historical NIH budget information.
- Percentile Ranking vs. Percent Success Rate: What is the difference? (MS Word - 40 KB) (01/25/2006) Paylines
- Description of the NIH Budget Process (PDF - 164 KB) - From the NIH Office of Budget Web Site.
- Historical information on RPG success rates for NIH Institutes and Centers

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

ENHANCING PEER REVIEW & YOUR COMPETITIVENESS

<http://grants.nih.gov/grants/financial/index.htm>

NIH Grants Information Resource

- NIH Grants Information Help Desk:** For questions about the content of new forms and instructions.
 - E-mail: grantsinfo@od.nih.gov or
 - Phone: 301-435-0714
- Grants.gov Contact Center:** For questions on form functionality or submission to Grants.gov.
 - E-mail: support@grants.gov
 - Phone: 1-800-518-4726
- NIH eRA Help Desk:** For post-submission questions or technical issues that threaten NIH's timely receipt of your application.
 - Web support: <http://ithelpdesk.nih.gov/eRA/>
 - Phone: 1-866-504-9552 or 301-402-7469