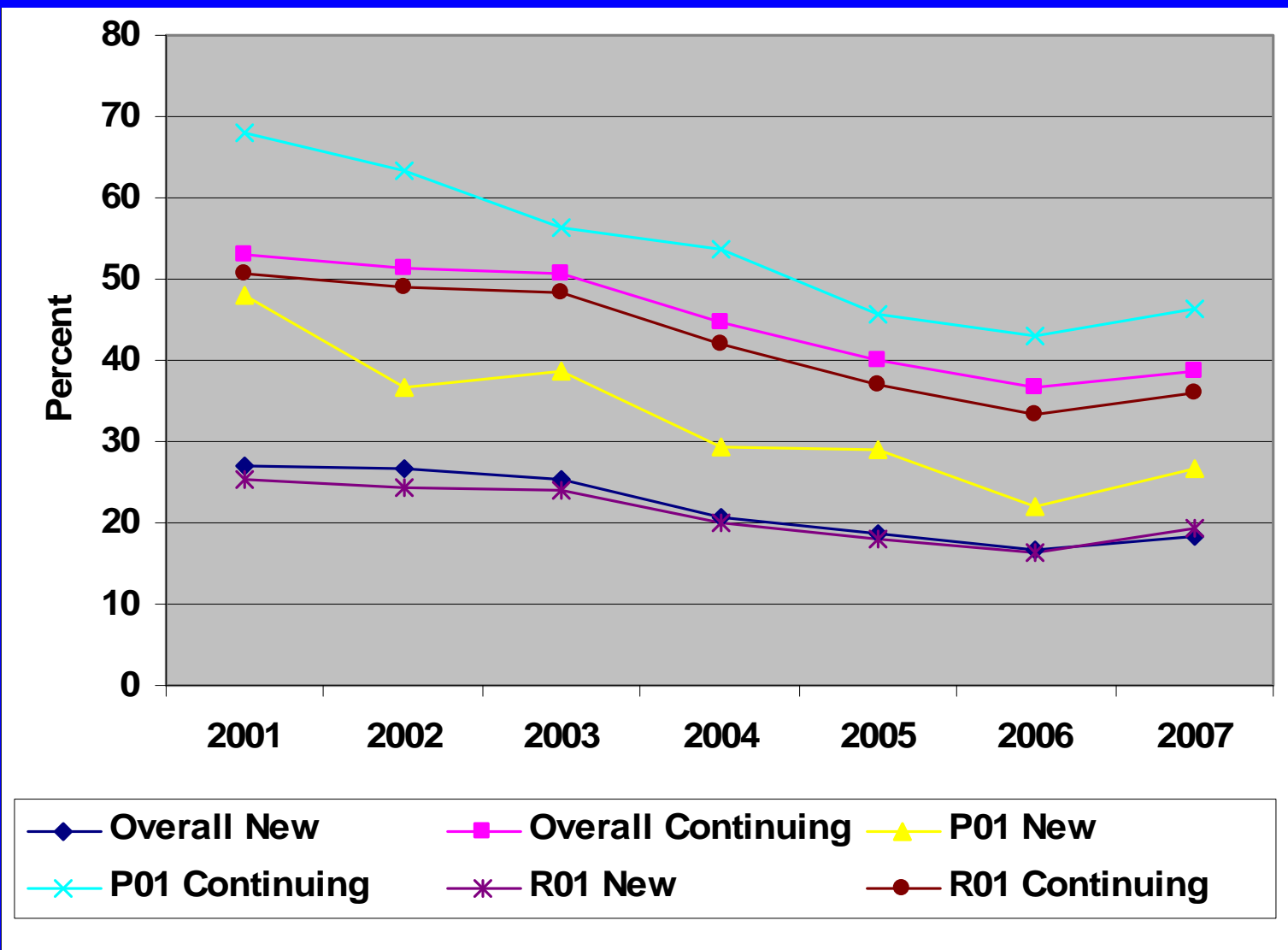


Resubmission Applications

to NIH: ***IF AT FIRST
YOU DON'T
SUCCEED...***

Decreasing Success Rates for Funding



Data source: NIH Office of Extramural Research, Success Rates: Success Rates by Type and Activity (<http://grants1.nih.gov/grants/award/success.htm>).

Today's Plan

- Introduce you to some Web-based resources.
- Understanding peer review and the Summary Statement
- Dealing with the Summary Statement and deciding: Is your application fixable?
- Revising your application and crafting the Introduction.
- Discussion by and questions for panelists.

Resubmission Applications: Web-based General Resources

- [Instructions for PHS 398 \(Rev. 11/2007\)](#)
 - Search on the term “resubmission”
 - Part I, sect. 2.7
 - Part III, sects. 1.2, 1.3
- [NIH Grant Cycle: Application to Renewal](#)
 - New addition to [“All About Grants Tutorials”](#)
 - Offers an algorithmic approach
 - Contains essential links and loads of advice

Resubmission Applications: NIH Policy*

- Summary Statement must be available in the eRA Commons.
- Project Directors/Principal Investigator(s) must make significant changes to the application.
- An Introduction must be included
 - Summarizing substantial additions, deletions, and changes.
 - Responding to issues/criticism raised in Summary Statement .
- Substantial scientific changes must be marked.
- Only 2 resubmission applications (A1 and A2) are allowed, with no time limit.

* From *Instructions for PHS 398*, rev. 11/2007.

NIH 2007–2008 Peer Review Self-Study Recommendations

- Reduce application length, but emphasize impact, uniqueness, originality.
- Consider all applications as new, i.e., no amended or resubmission applications.
- Establish "Not Recommended for Resubmission (NRR)" category — to help applicants make faster, more informed decisions to either refine an existing application or develop a new idea.

Subscribe to the *NIH Extramural Nexus*

<https://list.nih.gov/cgi-bin/wa?SUBED1=extramuralnexus&A=1>

Understanding

Peer

Review and the

Summary

Statement

Resubmission Applications: Web-based Resources on Peer Review

- [Peer Review Policies & Practices](#)
- [Center for Scientific Review](#)
 - ["Inside the NIH Grant Review Process"](#) video
 - ["Insider's Guide to Peer Review For Applicants"](#)

Streamlined Review Process

- Preliminary evaluations by primary, secondary, and tertiary reviewers identify applications of highest scientific merit for study section discussion.
- All other applications are “streamlined,” i.e., not scored or discussed, but receive a Summary Statement consisting of primary and secondary reviewers’ critiques.
- Applications discussed at study section meeting, generally, are scored and receive a Summary Statement including a third reviewer’s critique and a synopsis of the study section discussion.

Scoring Terminology: Priority Score

- Represents the **average** of individual ratings of scientific merit given by reviewers at a study group meeting.
- Ratings range from 1.0 (outstanding) to 5.0 (acceptable).
- Is expressed in the Summary Statement as a score of 100 to 500.

Scoring Terminology: Percentile Ranking

- Represents a **relative ranking** of each application's priority score among all scores assigned by a scientific review group at its last three meetings.
 - That is, the percentage of applications receiving a better priority score during a 1-year period.
- Is used by NIH institutes to set R01 pay lines and make funding decisions.
- Ranges from 0.1 to 99.5: the lower the number, the better the score.

What the Summary Statement Is Not

- Is **not** meant to be an **exhaustive critique** of your proposal.
- Does **not** point out or comment on **every issue** that reviewers found to be a problem.
- Comments are **never about you as a person**.

*Dealing
with the
Summary
Statement* and
**Deciding:
Is Your
Application
Fixable?**

Dealing with the Bad News

- Read the Summary Statement, and put it aside in a dark place for a week.*
- Then read it again, and re-read it a few more times.*
- Be cool and unemotional about reviewers' comments.
- Recognize: however limited the Summary Statement is and however off-the-mark you may believe the comments of the reviewers are:

You must address reviewers' concerns expressed in the Summary Statement.

* From *The Research Assistant*. <http://www.theresearchassistant.com/>. Click through to Grant Writing > Fatal Flaws and Common Pitfalls > Resubmission.

Dealing with Reviewers' Comments

- Analyze and evaluate the comments yourself.
- Call the NIH institute program officer or scientific review administrator to
 - Discuss possible resubmission.
 - Gain insight into reviewers' comments or the review group discussion (e.g., level of enthusiasm).
- Gather feedback from senior investigators.
- Ask at least two colleagues to read and summarize reviewers' comments into 12 or so major points.*
- Decide: Is your proposal fixable?

*From *UTMB Research Services*. <http://research.utmb.edu/ore/resubmission.shtm#resubmit>.

Organizing / Prioritizing Reviewers' Comments

- A thorough analysis and evaluation of the Summary Statement will help
 - Focus the work of revision.
 - Organize the substance of the Introduction.

Common Fixable Problems*

- Poor writing.
- Insufficient information, experimental details, or preliminary data.
- Significance not convincingly stated.
- Research not shown to be feasible with the proposed personnel.
- Insufficient discussion of obstacles and alternative approaches.
- Reviewers are not interested in the subject.

* From *NIH Grant Cycle*. [Part 11b. Not Funded, Reapply.](#)

Common Fixable Problems:

Poor Writing

- Understand “poor writing” in a broad sense:
 - Grammar and spelling
 - Organization
 - Presentation
 - Emphasis

Common Fixable Problems: Poor Writing

- “Rewrite; get help with writing and editing.”*

Office of Grants and Scientific Publishing

http://www.acrc.uams.edu/cancer_research/ogsp.asp

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* From *NIH Grant Cycle*. [Part 11b. Not Funded, Reapply.](#)

Common Fixable Problems:

Poor Writing

- Enlist spouse, colleagues, friends to read and proofread your application.
- Use your word-processor's spell-check function, and install Stedman's Medical Speller on your computer.
- Adopt an organizational structure for your proposal that prompts you to address essential topics:
 - Rationale / Hypothesis
 - Study Design / Approach
 - Analysis of Data
 - Expected Results / Problems and Solutions

Common Fixable Problems:

Poor Writing

- Installing Stedman's Medical Speller
- For PCs
 - Go to Start ► “Settings” ► “Control Panel”
 - Double-click on “Run Advertised Programs”
 - Click on the “Stedmans2006” and then click Run
- For Macs
 - A UAMS IT technician must install the software.
 - Contact UAMS Help Desk at 686-8555 or helpdesk@uams.edu



Organization of Research Design & Methods

D. RESEARCH DESIGN & METHODS (limited to 13–16 PAGES)

RATIONALE/HYPOTHESIS

OVERALL STUDY DESIGN

SPECIFIC RESEARCH DESIGN & METHODS

Specific Aim 1. [statement of aim]

Rationale/Hypothesis.

Approach.

Methods.

Data Analysis/Statistical Methods.

Expected Results, Potential Problems, and Solutions.

GENERAL METHODS

Common Fixable Problems and Solutions*

- Insufficient information, experimental details, or preliminary data.
- ✓ Assess what's missing; add it to the Research Plan.
- Significance not convincingly stated.
- ✓ Beef up that section; show the importance to institute's mission, your area of science, and public health.
- Research not shown to be feasible with the proposed personnel.
- ✓ Get consultants with the required expertise.
- Insufficient discussion of obstacles and alternative approaches.
- ✓ Describe what you'll do if you get negative results or an approach doesn't pan out. Include decision trees.

* From *NIH Grant Cycle*. [Part 11b. Not Funded, Reapply.](#)

Common Fixable Problems and Solutions*

- Reviewers are not interested in the subject.
- ✓ Were they the appropriate reviewers?
 - ✓ No?

Revise in response to Summary Statement critiques and resubmit, but request a different review group.
 - ✓ Yes?

Then this problem is not fixable.

* From *NIH Grant Cycle. [Part 11b. Not Funded, Reapply.](#)*

Not Fixable or More Difficult Problems*

- Philosophical issues, e.g., disagreement with reviewers about importance of your work.
- Hypothesis is not sound or not supported by the data.
- Work has already been done.
- Methods proposed were not suitable for testing the hypothesis.
- ✓ Develop a new application.
- ✓ Look for funding outside NIH.

* From *NIH Grant Cycle. [Part 11b. Not Funded, Reapply.](#)*

Reviewers... Generally Fair, Not Always Right*

- Reviewers do their best with the information they have, but could miss a point or misunderstand what you've written.*
- Therefore, you need to do an outstanding job of writing and organizing your application.*
- Consider *WHY* a reviewer may have missed or misunderstood your point or technique.

* From *NIH Grant Cycle. [Part 11b. Not Funded, Reapply.](#)*

Revising
Your
Application and **Crafting**
the Introduction

Approaching the Work of Revising

- Make every opportunity count:
 - Don't waste the 1st resubmission, assuming you'll get it right on the 2nd.
- Approach the proposal as a whole and rigorously review it to identify problems not mentioned in reviewers' critiques.
- Always look for ways to clarify, emphasize, and reiterate essential points and ideas.
- Expect the revision process to take as much time and effort as the initial submission, if not more time and effort.

“Never assume that the reviewers will know what you mean.

Always be explicit about what you want the reviewers to know and what they need to know.”

Crafting the Introduction

“In a revised application, the first thing reviewers look at is how well the scientist tried to deal with criticisms.”

Dealing with Criticism

- Don't ignore reviewers' comments.
- Don't argue with reviewers' comments.
- Don't try to gloss over reviewers' comments.
- Don't be hostile in response to reviewers' comments.

Dealing with Criticism

- **Do** put aside your irritations with reviewers' comments.
- **Do** remember that reviewers are generally trying to help you become a better research scientist.
- **Do** thank reviewers in the Introduction for their efforts and comments that have strengthened your application.
- Whatever the main criticisms, **do** find ways to address them – **substantively and convincingly**.

What If a Reviewer Is Wrong?

- Choose your battle wisely.
- Do not directly say a reviewer is wrong or his or her recommendation is impossible to follow:
 - Be diplomatic in your approach and language.
 - Do not be insulting.
- Support your position with references to the published literature.

Organizing the Introduction: General Considerations

- Use 12-point problem list developed from Summary Statement as basis for Introduction.
- Include a brief introductory paragraph or two in which you
 - Thank reviewers for their efforts and comments that have strengthened your application.
 - Briefly summarize the important changes you made, especially new preliminary data.
 - Explain how you indicated changes in the text.

Organizing the Introduction:

Common Formats

- Organize body of Introduction by one of two basic approaches:
 - By critique or reviewer.
 - By issue/specific aim.

Organizing the Introduction

By Critique or Reviewer

- Deals with each reviewer's critique and other matters in the Summary Statement separately.
- Works best if there is no overlap in the issues raised by each reviewer.
- Major headings are thus "Reviewer 1," "Reviewer 2," "Reviewer 3," etc.
- Each "Reviewer" subsection contains
 - Abbreviated quotation of relevant passage from Summary Statement.
 - Your response to issue or comment.

Organizing the Introduction

By Critique or Reviewer

INTRODUCTION

[Introductory paragraph]

[Introductory paragraph]

[Introductory paragraph]

Reviewer 1 [or Critique 1]

1. *[abbreviated quotation from Summary Statement concerning problem or issue]*

[Text of your response]

2. *[statement of problem or issue from Summary Statement]*

[Text of your response]

Reviewer 2 [or Critique 2]

1. *[statement of problem or issue from Summary Statement]*

[Text of your response]

2. *[statement of problem or issue from Summary Statement]*

[Text of your response]

Organizing the Introduction

By Issue/Specific Aim

- Deals with the issues raised across reviewers' critiques.
- Works better if there is a good deal of overlap in the issues raised by each reviewer.
- Major headings are “Specific Aim 1” etc. or phrases descriptive of issues/comments.
- Each subsection under major headings contains
 - Abbreviated quotation of relevant passage from Summary Statement.
 - Your response to issue or comment.

Organizing the Introduction

By Issue/Specific Aim

INTRODUCTION

[Introductory paragraph]

[Introductory paragraph]

[Introductory paragraph]

[Heading describing Issue 1] or Specific Aim 1

Reviewer 1

1. *[abbreviated quotation from Summary Statement concerning problem or issue]*

[Text of your response]

Reviewer 2

1. *[statement of problem or issue from Summary Statement]*

[Text of your response]

2. *[statement of problem or issue from Summary Statement]*

[Text of your response]

[Heading describing Issue 2] or Specific Aim 2

Reviewer 1

1. *[abbreviated quotation from Summary Statement concerning problem or issue]*

[Text of your response]

Reviewer 2

1. *[statement of problem or issue from Summary Statement]*

[Text of your response]

Resubmission
Applications
to NIH: Take-Home
Points

Take-Home Points

- Ask at least two colleagues to summarize the core issues/comments of reviewers in the Summary Statement, and do so yourself independently.
- Consult with
 - NIH program officer or SRA regarding how to proceed with revision.
 - Senior or more experienced colleagues.
- Make every opportunity count: Don't waste a submission.

Take-Home Points

- Whatever the main criticisms, and however unfair you may think them, you must find ways to address them — substantively and convincingly.
- Never assume that reviewers will know what you mean.
- Always be explicit about what you want reviewers to know and what they need to know.
- Always try to help reviewers understand what you propose to do, why it is important and innovative, how you propose to do it , and why you are the one to do it.

Panel

Discussion: Topics

Topic 1

How does CSR work?

What are the circumstances under which you review applications for study section meetings?

Discuss the dynamics of study section meetings and how they might be reflected in the Summary Statement?

Topic 2

**How does one go about interpreting the
Summary Statement?**

What does the priority score mean?

Topic 3

What do I do when I don't get a fundable score?

Topic 4

How should I approach writing the Introduction?

Topic 5

Final Tips and Pet Peeves

