Strategies for Maximizing the Likelihood of Grant Proposal Success

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Agenda

- +Select the right opportunity
- +Get your grant to the right panel
- +Work ahead!
- +External PRE-review
- +Be strategic with resubmissions
- +Bonus Tips/Tricks



Select the Right Opportunity

Make sure you are eligible for the program Check Check all eligibility criteria! Do your research on what the program funds, their Do priorities, and what has ALREADY been funded. Find a previously-funded proposal in your area, if possible. This can provide an example of what the Find program sees as fundable work. Talk with your program officer well in advance of the deadline. Share your summary/aims page if it's a new idea, or your Talk introduction if you are re-submitting. Incorporate their feedback into your proposal! 3

Give yourself enough time

"It's better to start early than finish late."

- We recommend starting at least 3 months prior to the deadline, and even earlier if you still need to collect preliminary data.
- It is critical to build in time for planning, writing, review, and revising.
 - If possible, we recommend two rounds of review and revision.
- Effie can help with timelines!

Factors to consider in your timeline

*Level of grant-writing experience – less experienced grant writers should allow 1.5-2x as long – you are not only writing the grant but also learning in the process

*Level of experience with agency and/or mechanism – less experience = more time needed to familiarize yourself with agency/mechanism requirements

*Complexity and length of application – larger, more complex grants = more time needed

*Size and complexity of your team – more people involved = more time needed for collecting materials, circulating for review, etc.

*Whether or not there is an internal competition requirement – some awards only allow so many opportunities/institution and you may need to go through that competition several months before submitting

*Whether you are submitting a new grant or revising a previous submission – revisions often take less time, but not always

General Submission Timeline

3-4 months before deadline

• Recruit your team members, define roles, agree upon submission strategy and timeline

3 months before deadline

- Draft your Specific Aims/Summary and allow your team to review
- Meet with your program officer and ask for feedback
- Notify Effie if you want her to assist and share your program solicitation, any previously submitted proposals, and associated review comments with her

2-3 months before deadline

 Revise your Aims based on PO feedback, draft your Research Strategy and other scientific/technical proposal documents

6-8 weeks before deadline

- Send your scientific/technical documents to Effie/others for review. We recommend allowing at least a week for this review.
- Use this time while those are under review to draft your supplemental documents, request needed items from collaborators
- Also notify PAS of your submission so they can add you to their queue. If you have subawards, make sure their sponsored programs office is notified as well

General Submission Timeline

4-6 weeks before deadline

• Send your Aims, Research Strategy, and any other documents you have ready to your scientific pre-reviewers. Ask for feedback by a particular date (allowing 7-14 days for review if possible), share as much information as you think will be helpful for them to complete their reviews.

3-4 weeks before deadline

• Revise your application based on reviewer feedback. Allow yourself at least one week for revisions (but 2 weeks is better!)

2-3 weeks before deadline

• Send your application back to reviewers if they suggested major changes. Let Effie/others take another pass at the revised version to polish your revisions, and ensure things are consistent across all technical and administrative/supplemental documents

At least 1 week before deadline

- Send budget and other required information to PAS for routing and approvals.
- Also send PAS all final documents as soon as they are ready for one last review before submission.

1-2 days before deadline

• Submit as soon as everything is approved! Watch your grant in eRA Commons/other submission portals to ensure there are no compliance issues or concerns and get them corrected ASAP if needed.

Scientific Prereview

 Successful grants have ALOT of feedback before submission.

- Recruit your mentors, collaborators, research team members (including your students) and other colleagues to review your application.
- Give them adequate time.
 - Notify them early so it's on their calendar.Allow at least a week for review.
- Get feedback from multiple perspectives, and at multiple points in the process.
 - Feedback on your concepts/aims page- then REVISE before writing everything else.
 - Feedback on the scientific/technical elements
 - Feedback on the writing

Example: Asking for Feedback

Hi, [COLLEAGUE]:

I'm working on an application to [FUNDING AGENCY] for [DEADLINE]. Would you be willing to look at a draft of the proposal in [2 WEEKS/1MONTH/SPECIFIC DATE]? Any feedback you can offer based on your expertise in [specific topic/analysis/study design/etc - area you're asking for that person's specific help with] will help me improve my application.

Out of respect for your time I'll ask you to look only at [SPECIFIC AREA OF THE APPLICATION]. I'll have a draft ready by [DATE]. Do you think you would be able to review the section and offer feedback by [DATE, at least 1-2 weeks later]?

Get your grant to the right panel

For NIH

- Use the PHS Assignment Request Form (G.600)
 - This is an optional form in Cayuse for most proposals.
 - You can request the awarding component (NIA, NIDA, etc), and the specific study section
 - You can select up to three preferences (1st, 2nd, and 3rd choice) AND specific "Do Not Assign" preferences for study sections to which you DO NOT want your grant assigned.
 - NIH of course has final say but will take your preferences into consideration.
 - You can also list specific individuals who should NOT review your application and request specific areas of scientific expertise needed to review your application.
 - More info here: <u>https://grants.nih.gov/grants/how-to-apply-application-guide/forms-e/general/g.600-phs-assignment-request-form.htm</u>

Get your grant to the right panel

- Use the RePORTer Matchmaker tool
 - <u>https://reporter.nih.gov/matchmaker</u>
- Email your SRO
 - We recommend emailing them prior to submission to note your proposal is coming and which panel you want.
- Check your assignment in eRA Commons. If it's wrong, be civil, but persistent in getting it moved to the right place.
 - If you are assigned to the wrong panel after submission, contact your SRO immediately, and copy <u>csrdrr@mail.nih.gov</u>

Strategic considerations for re-submissions

Should you re-submit at all?

- If your grant is scored in the top half of the range (or in NIH case, if you get discussed), you should resubmit
- If you are in the bottom half, you may want to consider going back to the drawing board and developing a different project
 - This doesn't necessarily mean throwing away all your ideas
 - But you may need to fundamentally re-conceptualize the project and it might better to just start from scratch rather than revising
 - You should also assess whether the reviewer comments can be addressed with re-writing what you've got
- Very low scores (bottom 25%) are an indication of serious weaknesses that likely won't be overcome with a simple revision

Strategic considerations for re-submissions

Should you submit a revised version of the project or submit it as a new grant?

- If your grant is scored in the top half of the range (or in NIH case, if you get discussed), you should strongly consider submitting the projects as a "re-submission"
 - Note that at NIH (and some other agencies), re-submissions require a response to review (Introduction) and the reviewers can see the comments and scores from the previous submission
 - Because the reviewers can see your scores, any bad scores can act as an "anchor" and pull down your re-submission
 - But good scores can act as a "halo" and lift you up 😊
- If you are in the bottom half, you may want to consider submitting the project as a new submission
 - In this case the reviewers won't have your previous results
 - However, if your scores are pretty good (i.e., you are in the very top of the bottom half), and the reviews are all fixable then you might want to submit as a "re-submission"
- This can sometimes be a tough judgment call, so don't be shy about reaching out for advice from colleagues, the PO, Effie and myself, etc.

Analysis of Reviews

- Read through ALL review comments
- Create a table that includes an overview of your scores by reviewer and category. If you have scores for more than one submission of the same proposal, include them all
- Create a second, larger table, and list ALL review comments by category and reviewer
- When planning for your revised proposal, refer to these tables. Think through the following questions as you prepare your updated proposal.
 - Can you address each comment? Should you?
 - Where will you address things? In the Research Strategy? The Introduction? Your biosketch? Other supporting documents?
 - How will you address the comments? Will you add more preliminary data? Will you add a new collaborator? Do you need to reframe your aims to address the reviewers' concerns?

Example of My Best R01 Idea Proposals Reviews Analysis

Cube									
Submission 1			Submission 2			Submission 3			Average
R1	R2	R	R1	R2	R3	R1	R2	R3	
		3							
3	5	3	2	3	5	3	3	2	3.08
2	4	2	1	3	2	1	2	1	2.00
3	5	5	2	4	5	2	3	2	3.44
6	9	4	4	3	5	4	3	2	4.44
1	5	1	1	1	1	2	1	1	1.56
ND			34/31%			20/12%			
	3 2 3 6 1	3 5 2 4 3 5 6 9 1 5	3 5 3 2 4 2 3 5 5 6 9 4 1 5 1	3 5 3 2 2 4 2 1 3 5 5 2 6 9 4 4 1 5 1 1	3 3 2 3 3 5 3 2 3 2 4 2 1 3 3 5 5 2 4 6 9 4 4 3 1 5 1 1 1	3 3 2 3 5 3 5 3 2 3 5 2 4 2 1 3 2 3 5 5 2 4 5 6 9 4 4 3 5 1 5 1 1 1	3 3 2 3 5 3 3 5 3 2 3 5 3 2 4 2 1 3 2 1 3 5 5 2 4 5 2 3 5 5 2 4 5 2 6 9 4 4 3 5 4 1 5 1 1 1 1 2	3 3 2 3 5 3 3 3 5 3 2 3 5 3 3 2 4 2 1 3 2 1 2 3 5 5 2 4 5 2 3 6 9 4 4 3 5 4 3 1 5 1 1 1 2 1	3 3 - - - - 3 5 3 2 3 5 3 3 2 2 4 2 1 3 2 1 2 1 3 5 5 2 4 5 2 3 2 3 5 5 2 4 5 2 3 2 6 9 4 4 3 5 4 3 2 1 5 1 1 1 2 1 1

Review Comments

Submission #XXXX						
Area	Reviewer/Criticism	Proposed strategy for new submission				
Sign. #1	List reviewer number and review comments	Indicate how you plan to deal with this comment				
Sign. #2						
Sign. #3						
Invest. #1						
Innov. #1						
Apprch. #1						
Apprch. #2						
Env. #1						

Analysis of Reviews

- +Once you have listed all of your scores and reviews in a table, with your plan to address them, write your new proposal
- +Refer back to your table as you write, and ensure that you describe your changes clearly in your Introduction (if a resubmission) and in your proposal itself
- +Ask your external reviewers to grade you on this table. Share your reviews and plans to address them with your external reviewers/mentors and see if they can follow your changes
- +Then, when you have your scores from the second/subsequent submission, see if your plan worked!

Were my revisions effective?

3 rd Submission Reviews								
Area	Reviewer/Criticism	Addressed?	How?	Did Scores Improve in that area? (<u>from</u> 2nd to 3 rd submission)				
Sign. #1	1-List review comment	Y	Addressed with XYZ	Yes, but still some lingering issues $(2,3,5 \rightarrow 3,3,2)$				
Sign. #2	2- List review comment	Kind of	Added more prelim data	Yes, but still some lingering issues (2,3,5 → 3,3,2)				
Inv. #1	2- List review comment	N	Additional publications with collaborator provided	No, results mixed				
Innov. #1	3- List review comment	Y	I made this clearer	Yes				
Apprch #1	1,2-No examination of sex as a biological variable	Y	Included females	Yes				

After your resubmission is scored

- Did your revisions work?
- Did your scores improve overall? Did they improve in certain categories but not others?
- Were your reviewers concerned about the same issues in your second submission? Did new issues surface?
- Look for patterns in your reviews. I like to group things into 3 categories:
 - Areas that improved
 - Areas that receive recurring critiques
 - New areas of concern (in the most recent submission)
- Do you see evidence of bias or misunderstanding of your proposal in the review comments
 - This may indicate that your proposal is not going to the correct review panel
 - Or, you may not be getting the right expertise within a panel, so you might want to update your reviewer expertise requests

More Tips

- Use figures wisely
 - Aim to have at least 1 figure per page of text (so at least 12 figures in a 12-page Research Strategy) on AVERAGE
 - Use your figure titles to tell your reviewer what they should conclude from your figure.
 - For example, tell them the results from your preliminary data, don't ask your reviewer to come to their own conclusions. "Prior amphetamine self-administration impairs devaluation"
 - Include an in-text callout for all figures, e.g., see Fig. 1, so that reviewers know when to reference them as they are reading.

More Tips

- Include a timeline for your project
- Include a future directions section, especially on smaller seed grants (but good to include on all grants)
- Always, always know your audience
- Reviewers are busy, so make it easy on them
 - This means you must connect the dots for them
 - Do not hint around or let them draw their own conclusions be direct!
- Make sure to focus on the writing as well as the ideas
 - Good paragraph and sentence structures
 - Clarity of writing
- Leave plenty of time for error-checking and copyediting

Supporting materials

- Don't overlook your supporting materials
- These often don't have page limits and can be a great place to enhance your main grant materials
 - Example 1: "Personnel justification" can reinforce the Biosketch info on individual's expertise, reinforce your budget by explaining the need for each person, and clearly define each person's role, explain how you will orchestrate and manage the team
 - Example 2: Human subjects and vertebrate animals can reinforce and expand your methods details, where appropriate
 - However, make sure that you don't offload key details from your Research Strategy that are needed to meet core reviewer scoring criteria to the supporting materials
- Develop a wholistic proposal all documents should work together and reinforce each other

Answer the Implicit Questions-Explicitly

Is this study <u>worth</u> doing?

- + Show reviewers why your topic is urgent, or why <u>this</u> opportunity is the right fit for your project.
- + If there are concerns that the work may not be timely or worthwhile, anticipate those and address them proactively

Can we <u>trust</u> the research team?

- How can you assure reviewers you have the expertise, resources, and commitment needed to complete the project (on time and on budget)?
- + Where in your proposal can you point to your team's expertise and experience?

Is the project plan feasible?

- + How do you know that your study is *very likely* to be successful?
- + What issues might come up? How will you address them?
- + Ensure reviewers that you've thought of everything, and you have it under control regardless.

And don't forget the most important thing...

- Always favor quality over quantity
- It's better to submit 1 great grant than to submit several "okay" grants
- You can write a great grant by following many of the tips here, especially
 - Start early and keep to your timelines
 - Do your homework on the agency and mechanism requirements, priorities, and mission
 - Use your resources (program officers, mentors, collaborators, students, CNAP team)
 - Focus on writing as well as generating exciting ideas
 - Leave time to write awesome supporting documents
 - Get plenty of feedback
 - Be as strategic as possible in every aspect of your grant writing



Let me help you!

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