

Scientific Editing and Research Communication Core

Common Pitfalls in Writing NIH Grants



Created with Biorender.com

Getting funded is never easy, but persistence will pay off in the end for well-thought-out projects that address important questions and fit the funder's mission. You can improve your chances of getting funded sooner, rather than later, by avoiding common pitfalls in grant writing. This newsletter covers common mistakes in NIH grant applications, including both procedural and score-driving errors.

Procedural errors include using the wrong software or forms and not following the instructions. Examples include the following:

- **Using the wrong PDF software.** When creating and working with PDF files, using a version of Adobe Acrobat or Reader that is incompatible with Grants.gov software could corrupt the PDFs (see [Information on Adobe compatibility](#)).
- **Using the wrong forms.** As one example, applicants sometimes use the wrong form for the NIH Biosketch. NIH provides [distinct format pages](#) for fellowship (F) and non-fellowship (all other) applications; [templates for both types of biosketch](#) are available on the SERCC resources page. Another example is using the wrong version of the NIH grant application forms. Use the most current forms package, [SF424 \(R&R\) Version H](#).
- **Not following the NIH instructions.** You can get a [rejection notice](#) for simply not using the proper formatting (for example, if your title exceeds the character limit).
- **Adding text where it does not belong.** NIH may interpret this as an attempt to bypass NIH page limits, and may [disqualify grants](#) based on this. For example, including a statistical power analysis justifying sample size in the attachment on vertebrate animals (VAS, Vertebrate Animal Section), instead of in the Research Strategy, is sufficient reason to disqualify a grant. [Guidance](#) on what justifications to provide can be found on p. 3, Section 2 of the VAS checklist.
- **Failing to meet eligibility requirements.** Remember to check whether the funding announcement has specific eligibility criteria.
- **Noncompliance due to conflicting instructions.** NIH instructions are sometimes unclear or conflicting. From an [NIH Extramural Nexus post](#) about which forms of guidance "win" over others in this context:
 - NIH Guide Notices win over every other guidance, that is, NIH Guide Notices win over funding opportunity announcements (FOAs), also known as notices of funding opportunities (NOFOs), and [over the application guide instructions](#) (default).
 - FOA/NOFOs win over application guide instructions.
- **Late resubmission of an "A1" application.** A resubmission application (A1) must be submitted within 37 months of the new, renewal, or revision application (A0) it follows. Otherwise, it must be submitted as a new application ([NIH page on Resubmission Applications](#)).

Score-driving errors refer to mistakes in the Specific Aims page or the Research Strategy that would not disqualify a grant but result in a lower score on the scored review criteria.

The five scored review criteria for NIH Research (R) grant applications—for due dates before Jan 25, 2025—are: Significance, Investigator(s), Innovation, Approach, and Environment. Be sure to refer to the [application guide instructions](#) for these, as well as for non-scored criteria, and to the Application Review Information section of your FOA or NOFO. Also, Requests for Application (RFAs) and other targeted funding opportunities may have specific additional scoring criteria.

According to the *Extramural Nexus*, [the ten score-driving problems reported most often by reviewers](#) are:

- Lack of new or original ideas
- Absence of an acceptable scientific rationale

Upcoming Opportunities

Have a question about writing grants or research articles? [Contact us](#) and we will attempt to answer it in a future newsletter.

Hardin Open Workshops—ORCID: Open Researcher and Contributor ID (Zoom)

December 1 | 1:00 pm–2:00 pm | [Zoom](#)

What is an ORCID? Why would you want one? We will discuss ORCIDs, how researchers can benefit from having one, and how ORCIDs connect with other information systems. This will also be a hands-on workshop where everyone will have the chance to create their own ORCID and learn the most efficient ways to populate their profile with their publications. All classes are free of charge but pre-registration is recommended.

[Pre-register or find additional Hardin workshops here](#)

Limited Submission: Mallinckrodt Foundation Scholars Program 2024

December 11 (Internal Submission Deadline)

January 15 (Sponsor Deadline)

The mission of the Mallinckrodt Foundation is to support early-stage investigators engaged in basic biomedical research that has the potential to significantly advance the understanding, diagnosis or treatment of disease. Eligibility: Faculty members who hold MD and/or PhD degrees, and are in their fifth to eighth year of a tenure-track position, with support to move the project forward to the point where other independent funding can be obtained, are eligible to apply. Limitation: two applications per institution

[Submit internal application](#)

Request for information (RFI): refreshing the NHLBI Strategic Vision

December 15 (Sponsor Deadline)

The NHLBI is inviting its constituents—both individuals and organizations—as it refreshes its Strategic Vision. The RFI asks for perspectives on the current relevance of NHLBI's strategic objectives and whether additional Compelling Questions and Critical Challenges might drive important scientific and health advances.

[Respond to the RFI here](#)

Limited Submission: NIH: Collaborative Program Grant for Multidisciplinary Teams (RM1 - Clinical Trial Optional)

December 21 (Internal Submission Deadline)

January 26 (Sponsor Deadline)

This FOA is designed to support highly integrated research teams of three to six PDs/PIs to address ambitious and challenging research questions that are within the mission of NIGMS. Project goals should not be achievable with a collection of individual efforts or projects. Collaborative program teams are expected to accomplish goals that require considerable synergy and managed team interactions. Teams are encouraged to consider far-reaching objectives that will produce major advances in their fields. Limitation: two applications per institution

[Submit internal application](#)

- Lack of experience in the essential methodology
- Questionable reasoning in experimental approach
- Uncritical approach
- Diffuse, superficial, or unfocused research plan
- Lack of sufficient experimental detail
- Lack of knowledge of published relevant work
- Unrealistically large amount of work proposed
- Uncertainty concerning future directions

Some of the problems listed above reflect the [NIH's stress on scientific rigor and reproducibility](#). Common score-driving errors with respect to rigor and reproducibility include not discussing [sex as a biological variable](#), not citing the limitations of previous research ([Section IIA1, NIH FAQs on rigor and reproducibility](#)), and not including a power analysis to justify sample size or a description of the statistical analyses to be used.

If you avoid common grant-writing mistakes—both procedural and score-driving—you will keep the focus of the reviewers on the quality of your science and the reasons they should be excited to fund it!

Good luck with your next grant submission!
Mike Rebagliati and the SERCC Team

University of Iowa Research Foundation Technology Commercialization Series

December 7 | 3:00 pm–4:30 pm | [Licensing and Commercialization](#)

February 8 | 3:00 pm–4:30 pm | [Disclosure and Intellectual Property \(IP\)](#)

March 7 | 3:00 pm–4:30 pm | [Licensing and Commercialization](#)

Classes are discussion-based and participants are encouraged to bring questions. These classes are designed to give faculty, staff, and students an introduction to the commercialization process from invention disclosure through post-licensing. Participants will gain a better understanding on how to approach innovation, and how UIRF gets their ideas to the market; by licensing to an existing company or a start-up. Each class is independent of the others and participants do not need to be currently working with UIRF to join. The series is offered at the end of the fall semester and again in the start of the spring semester.

[Additional Information](#)

[Unsubscribe](#)