

WRITING SUCCESSFUL GRANTS
Exercises in Grant Writing

A. A Starting Point. The following questions are a necessary starting point: You need a brief, convincing answer to each of them as a way of testing your readiness to start writing a grant. Answer each of the following in 25 words or less:

1. What are you passionate about? (In terms of research, that is) _____

2. What is the problem (or need) and why is it important? _____

2a. What sources or kinds of data can you use to validate the importance of your proposed project? _____

3. How is existing knowledge or practice inadequate? _____

4. Why is your idea better? _____

5. How is it new, unique, different? _____

6. What will it contribute and who will benefit from it? _____

B. The Pitch. What key themes can you stress in building “the pitch” for your proposal?

C. Goals and Objectives.

Write a goal statement for your proposal: _____

Construct a specific, measurable objective for your proposal: _____

D. Keep It Simple: Jargon, Passive vs. Active Voice

1. Reduce the following sentence to a simpler form with fewer words that conveys the same meaning:

It is the objective of the research team to obtain data that can be used in conjunction with a comprehensive chemical kinetics modeling study to generate a detailed understanding of the fundamental chemical processes that lead to engine knock.

2. Rewrite the following as a single sentence with active voice:

Today it was determined that a recent ruling by the Illinois Supreme Court would be allowed to stand. The case involved whether the court should or should not grant custody of a baby boy to his biological father, even though that father has never seen his son. The original Illinois ruling which granted custody to the father was appealed to the Supreme Court, and today, in an order written by Justice John Paul Stevens, the Supreme Court refused to delay the Illinois ruling. (3 sentences; 83 words)

3. Substitute a single word for each of the following phrases:

- at this point in time _____
- at that point in time _____
- has the ability to _____
- has the potential to _____
- in light of the fact that _____
- in the event that _____
- in the vicinity of _____
- owing to the fact that _____
- the question as to whether _____
- there is no doubt that _____
- with the exception of _____
- in the near future _____
- in addition to _____
- in the course of _____
- in the majority of cases _____
- it would thus appear that _____

E. Goals and Objectives. The NIH application instructions call for a Research Plan that begins with a section labeled “Specific Aims,” which should include: **a) a statement of the long term goals of the proposed line of research; b) a specific, testable hypothesis for the proposed project; and c) 2 – 4 specific aims, each stated concisely in a single sentence.** The specific aims (research objectives) are to be cohesive, logically consistent, and capable of testing the stated hypothesis.

Given these guidelines, evaluate the effectiveness of the following excerpt from a proposal recently submitted to NIH. What are its strengths and weaknesses? Would you fund this proposal?

Proposal Excerpt: “Histopathology and Clinical Assessments of Visual Systems in Alzheimer’s Patients”

RESEARCH PLAN

Section A. Specific Aims

Alzheimer’s disease (AD) is a dementing disorder of unknown etiology. The diagnosis of “presumed” or “probable” AD is made through clinical diagnosis, in recognition that AD can only be definitively diagnosed histopathologically. Characteristically, memory is initially impaired, followed by visuo-spatial deficits, and finally, involvement of all cognitive functions.

We hope to address a number of Specific Aims by the completion of this project:

- 1. Is there a selective involvement of a particular component or class of cells in the visual system of AD patients? If so, can this be related to the pathophysiology in the rest of the brain? If there is a predilection for loss of a class of ganglion cells in AD, this may yield insight to the reasons for predominant degeneration of large neurons in other areas of the brain (Terry et al., 1981).*
- 2. Can visual testing be used, in conjunction with present neurological and psychometric evaluations, as a screening procedure to identify AD?*
- 3. Can visual testing or histopathological assessments of the visual system be used to identify subtypes of AD? If so, this might provide insights leading to possible management and treatment strategies for AD.*
- 4. We will gain insights into both anatomical and functional AD subgroups through correlative histopathological and clinical assessments of the visual system in the age-matched controls (normals) used in this study.*
- 5. Significant new data relevant to the effect of age on the visual system will be gathered.*

Notes: _____

F. Visualization Exercise

Read the Proposal Summary of the “HOPE Program Expansion Proposal.” Draw a picture of the project’s basic concept.

G. What Makes a Winner? The handout “Nanoscale Processes in the Environment: Nanobiogeochemistry of Microbe/Mineral Interactions” consists of the first three pages of an NSF grant proposal that won \$2 million. As you read the material, try to identify the specific qualities of the writing that made this a successful proposal.

1. How does the style and tone reflect some of the principles we discussed in this workshop?
2. What strategies does the writer use to convince reviewers that this project is worthy of funding?
3. Did you find the document easy to read? What specific formatting techniques account for this?
4. If you were a reviewer, would you be inclined to recommend funding? If so, what specific qualities or characteristics of the proposal helped “sell” you on the project?