

Grantsmanship 101: Developing and Writing Effective Grant Applications

Session 3: Crafting Effective Specific Aims



General Considerations for Specific Aims

- The *Specific Aims* section is arguably the most important of the application.
- The *Specific Aims* constitute the template or master plan for the rest of your Research Plan.
- The *Specific Aims* section should include everything about your application that is important and exciting – without the detail.
- The *Specific Aims* will be used by the SRO to recruit reviewers for your application.
- Most members of the study section will only read the *Specific Aims* (and Project Summary/Abstract) before they vote a score.

General Considerations for Specific Aims (cont.)

- The *Specific Aims* section should be written to create a partnership with the assigned reviewers: **you** provide the conceptual framework upon which **they** hang the details of what will be done.

Writing Specific Aims

- Create a bullet outline (no text!).
- Consider organizing bullets within *four* distinct paragraphs:
 - Introductory paragraph
 - “What, Why, Who” paragraph
 - Specific Aims “paragraph”
 - “Payoff” paragraph

Writing Specific Aims: Introductory Paragraph

- The **opening sentence** must be an *interest-grabbing* sentence that immediately establishes the relevance of the proposal to human health.
 - You want to convey that, by supporting your proposal, the reviewers will be helping NIH accomplish its goals.
- A statement of **current knowledge** will help less expert members of the panel get up to speed with respect to what is known about the topic of the application.
- Introduce what is missing in sentences that identify the **gap in knowledge**. It is the gap in knowledge that is holding back the field and is what you will address in the application.

Writing Specific Aims: “What, Why, Who” Paragraph

- The **long term goal** projects the continuum of research that you will pursue over the course of multiple periods of grant support.
 - This component tells the reviewers what the “big picture” of your research program is.
- The long term goal is followed by the **objective of this application**, which defines what it seeks to accomplish.
 - This component must link back to the *gap in knowledge*, and emphasize the *product* and not the process.
- The **central hypothesis** must link to the *objective*, because the objective will be accomplished by testing the central hypothesis.
- The final component, **rationale**, conveys *why* you want to conduct the proposed research. Your *rationale* should tell the reviewers what will become possible after the research is conducted that is not possible now!

Writing Specific Aims: Specific Aims “Paragraph”

- The aims are probably the most difficult components to write.
- There must be complete concordance between the aims and the parts of your central hypothesis.
- The aims should be brief, informative, **headlines** that will attract the reviewer’s attention.
- Each aim should convey **why** that part of the research is being done, **not what** will be done.
- Your aims should not be descriptive, and as such you should avoid using words that connote description.
 - “compare”, “correlate”, “describe”, “investigate”

Writing Specific Aims: “Payoff” Paragraph

- This paragraph helps to develop advocacy for your proposal among the majority of reviewers who will not, in all likelihood, have read the complete application.
- The **expected outcomes** articulate the expected products of the research. This paragraph details the **payoff** that the reviewers can expect to realize if they vote to recommend funding of your application.
- There should be at least one **important expected outcome** for each of your aims.
- The final part of the *Specific Aims* section must summarize the general impact of the expected outcomes. The **positive impact** statement should make clear that, collectively, the outcomes will advance your field vertically, as well as contribute to the mission of the NIH Institute/Center that you are targeting.

Linear Progression of Logic for a Strong Specific Aims Section

