**SPECIFIC AIMS**

This page is likely the only page that most study section reviewers will read from your entire proposal, if a reviewer is NOT one of your 3+ assigned reviewers. A reviewer who is not assigned to your proposal does not have an obligation to look at any other documentation in your packet, so this page should be a roadmap for your *entire* proposal.

It should answer the following questions, preferably in this order:

* WHO are the people who will be helped by this proposal? (This is NIH, which is concerned about people and their health, so it is very important to answer who!)
* WHY does this population have a problem? (Significance)
  + The entire reason your proposal exists is predicated on the (lack of rigor of the) prior research and the strength of your preliminary data, so you need to describe:
    - The current state of the field and/or gold standard
    - Why the current state/standard is lacking for the population you want to help
    - Can include your preliminary data here (e.g., data shows different mechanism than accepted in the field may be a driver)
* HOW is your solution different/better than current standard? (Innovation)
  + Can include your preliminary data here (e.g., your platform captures a critical variable)
* WHAT will you do? (Approach/Aims)

Sample structure

**SPECIFIC AIMS:** <1-3 paragraphs describing the WHO, WHY, and HOW>

**Aim 1: <hypothesis-driven aim statement or question>**

\*\*repeat as needed; no more than 4 aims recommended\*\*

**Impact:** short paragraph that describes the payoff

Examples of full applications: These applications were generously provided by the investigators as examples of good grantsmanship. However, these samples may not reflect the latest NIH guidelines or format. Consult the SF-424 for the latest guidelines.

BU Proposal Library (Kerberos): <https://www.bu.edu/research/funding-grants/proposal-development-grantwriting/proposal-library/>

NIAID samples: <https://www.niaid.nih.gov/grants-contracts/sample-applications>

NCI samples:

[Behavioral Research Program (BRP)](https://cancercontrol.cancer.gov/brp/funding/sample-application.html)

[Implementation Science (IS) with dissemination and implementation (D&I) grant applications](https://cancercontrol.cancer.gov/IS/sample-grant-applications.html)

[Epidemiology and Genomics Research Program (EGRP)](https://epi.grants.cancer.gov/funding/grantsmanship/sample-grants.html)

**RESEARCH STRATEGY (subheadings in bold are recommended to be included)**

**SIGNIFICANCE**

* Short description that answers: WHO are you helping and WHY is it important to help this population?
* Should also include your hypothesis

**Rigor of Prior Research:** This section will also answer WHY it is important to help this population.

* Includes literature that:
  + describes the gap in research, including prior studies that may not have been rigorously conducted (e.g., sample size too small, did not account for X pathway mechanisms)
  + supports your hypothesis
* Also includes preliminary data that supports your hypothesis
  + <https://grants.nih.gov/policy/reproducibility/guidance.htm>
  + <https://grants.nih.gov/faqs#/rigor-and-reproducibility.htm>
  + <https://grants.nih.gov/policy-and-compliance/policy-topics/reproducibility/notices-blogs>: See blog posts from January 29, 2016

\*\*Taken together, these should establish the need for what you will do in your proposal.\*\*

Sample structure:

**Subheading describing gap.** Topic sentence that establishes the general state of the field, transitioning into what is unknown. <brief description of the literature, giving priority to describing the (lack of) rigor from prior studies, or your preliminary data (e.g., contradicts literature)> Concluding sentence that is forward-looking (e.g., Thus, in Aim 1, we will do XXX to determine YYYY.)

**Impact:** If your proposal is successful, what will your results mean for the field? for patients?

**INNOVATION**

* Describe HOW your research and/or approach is different from what has been done before
  + Can include both conceptual and technical innovations
  + Can be either bullet list or paragraph format

**APPROACH**

**Aim 1. <copy from your Specific Aims page verbatim>**

**Rationale.** Describe the literature and/or preliminary data that supports the need and/or feasibility to do this aim. (These are also rigor of prior research.)

**Experimental Design.** Describes your study design, including controls and variables. Briefly describe methods. May include statistics (can also be in a separate section), depending on what makes sense for your entire proposal.

**Expected Results, Potential Problems, and Alternative Solutions.** Problems should be related to *science*, not logistics! Describing potential problems and alternative solutions is especially important if you are not an established investigator!

\*\*repeat as needed\*\*

**Reproducibility/Sex as a Biological Variable:** include as needed where it makes sense for your proposal. See:

<https://grants.nih.gov/policy/reproducibility/guidance.htm>

<https://grants.nih.gov/faqs#/rigor-and-reproducibility.htm>

<https://orwh.od.nih.gov/sex-as-biological-variable>

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-23-057.html>

<https://grants.nih.gov/policy/reproducibility/resources.htm#tools>

<https://faseb.onlinelibrary.wiley.com/doi/full/10.1096/fj.15-279554>