SPECIFIC AIMS FORMULA

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- ❑ **Introductory stem:**
  1. **First Sentence: What is your grant about?**
     - ❑ The first two words of this sentence are key. You want to neurally prime the reader with the topic. In other words, if your proposal is about autism, then autism should be in the first few words of the first sentence. On the other hand, if your grant is really about the development of cortical neural circuits and a long-term potential application of your work is for the study of autism or other developmental disorders, then DON'T make the first word of the first sentence "autism". If you do this, you will prime your reader to think the proposal is about autism, when it is really about neural circuits, and he/she will be misled. In this case, the first sentence should have the words "development of neural circuits", and the clinical application should come later.
  2. **Second Sentence or two: What is the state of current knowledge?**
     - ❑ Here provide a brief sentence or two about what is known.
     - ❑ This should not go on for pages and pages. Pick the most relevant pieces of information that build an understanding for the importance of your work in 1-3 sentences max.
  3. **NEXT: Where is the gap in knowledge?**
     - ❑ What is the unmet need? What is not known or what has been challenged recently?
     - ❑ You can use phrases like, "This leaves an unsolved problem…" or "However, it is unknown if X modulates Y", or "However, xyz remains poorly understood".
     - ❑ If appropriate here you can state explain who cares: "This is important because pharmaceutical treatments cannot be developed without understanding this key mechanism."
- ❑ **Next, focus on goals: Here you come to the rescue to fill the gap!**
  1. Clearly state what you will do to fix this gap in knowledge or unmet need.
     - ❑ State long-term goal or overarching objective of the proposed research.
     - ❑ You can use phrases like, "The goal of this project is to…."
  2. Here you can also include a Central Hypothesis and/or include hypotheses in each of the aims below. However, a hypothesis needs to be included in the specific aims and in **bold** somewhere in the specific aims.
- ❑ **Next, clearly state your Aims:** Use bullets or tabs, and plenty of space to separate them from the rest of the text. Use subheadings for the hypothesis and approach. You do not need to go into exhaustive detail on your approach, but it is important to give the reader an idea in your aims of what you will be doing! Animals? Humans? Behavioral? Histological? Electrophysiological? For example, you can something like, "I will use viral tract tracing in reporter mouse line of X to determine the retinal ganglion cells that innervate the dorsal lateral geniculate of the thalamus."

  Aim 1 (title): to determine X
   Hypothesis:
   Approach: I will use ___method(s) to test _____
  Aim 2 (title): to determine Y.
   Hypothesis:
   Approach: I will use _____method(s) to test _____

- ❑ **Close with a BANG!**
  1. Take home message: What's the payoff? Significance! What is the impact to the world?
  2. How does this work fit with the mission of the granting agency? Here you can even quote parts of the mission statement as it is presented on the agency's webpage!