

Checklist: Writing a Research Proposal

- The **title** succinctly describes the topic of your proposal
- The **background** describes the relevant past work on your topic and clearly leads to an interesting hypothesis or goal
- The **hypothesis/goal** of your proposal is clearly highlighted (should be underlined or written in bold and/or italics)
- Preliminary data** demonstrate that you have initial success toward achieving a scientific goal, increasing the likelihood that your proposed experiments will lead to positive results
- The **research design and methods** section contains 2-3 specific aims that are clearly subdivided (even if not explicitly required by the funding agency) to explain the rationale of each aim, experimental design, potential results and interpretations, and potential problems and alternative approaches
- You have clearly demonstrated logical thinking for each of your experimental aims: "If I observe result A, I will conclude X; If I observe result B, I will conclude Y; If I observe result C, I will conclude Z"
- A brief **conclusion** restates your scientific goal and why your study should be funded
- The organization of your proposal is evident because major headings are written in a larger font size, in bold, or in all capital letters
- Throughout your proposal, you have clearly justified that:
 - Your scientific topic is important
 - Your specific scientific question/goal is important
 - You are an expert on your topic and have a command of the relevant scientific literature
 - You are fully qualified to perform the study
 - Your institution is a terrific place to perform the study
 - You have a likely chance of success
 - Your methods are feasible and you have the necessary expertise and resources to conduct the experiments
 - The results of your study will make a substantial contribution to your scientific field
- You have included as many helpful visual diagrams as possible to showcase preliminary data, experimental design and methods, and potential results and interpretations
- Wordiness is eliminated so that the proposal is written in an appropriate font size and with acceptable margins
- The proposal follows all directions specified by the funding agency to which you are submitting
- The manuscript is completely free of errors, typos, and grammatical mistakes
- You have solicited and received feedback from multiple colleagues on both content and style