

Work Sheet: Planning Your GRFP Research Proposal

I. Introduction. *In 4-5 powerful sentences, state the nature of the specific, researchable problem you intend to address (or your overarching aim/purpose). Include why this work is important and how you became interested in the problem.*

II. Literature Review and Preliminary Work

II. A. Literature Review: *List 3-4 key findings from the literature that demonstrate the scope of the problem you intend to address. If your research is interdisciplinary, include references from more than one discipline. Note the primary author's name and publication date. If possible, use nationally known researchers in the area(s) of study.*

1 st finding:		
	Author:	Date:
2 nd finding:		
	Author:	Date:
3 rd finding:		
	Author:	Date:
4 th finding:		
	Author:	Date:

II. B. Preliminary Work. *In 3-4 sentences, describe the research you and/or your mentor have accomplished to date related to the problem you intend to address. State your role in previous work, especially if this is a collaborative team or inter-disciplinary work. Include your findings, even though preliminary or inconclusive.*

III. Hypotheses or Research Questions. *In the first column of the table below, list 2-3 hypotheses or specific research questions you intend to address. Each should be one sentence long.*

IV. Research Plan

IV A. Methods. *Next, for each hypothesis or question, list how you will collect and analyze data. Note the lab space and equipment you need. Include chemicals, instruments, tools, controls, etc. Be sure that methods are appropriate for the corresponding hypothesis or research questions!*

	III. Hypotheses or Research Questions	IV A. Corresponding Research Methods Note: Your plan must be specific and rigorous!
1		
2		
3		

IV. Research Plan -- continued. *Answer each of the following questions:*

IV. B. Compliance. *If appropriate to your research, how will you protect human subjects and/or adhere to animal welfare regulations? Do you need/have certification?*

IV. C. Timeline. *How long will it take you to conduct this study and analyze the findings?*

IV. D. Evaluation. *How will you monitor and report your progress toward the study's completion?*

IV. E. Limitations. *Knowing that every study has potential barriers or limitations, what is your contingency plan if things go wrong (unexpected results midway in the study?)*

V. Anticipated Results or Findings. *In 3-4 sentences, specifically state what you expect to find. Be sure to give the rationale/basis for your assertion.*

VI. Intellectual Merit and Broader Impacts see also http://www.nsfgrfp.org/how_to_apply/review_criteria#impacts

VI. A. Intellectual Merit *In 1-2 sentences, restate the magnitude of the problem and why this research is necessary.*

In one sentence, explain how your research findings will fill a gap in the literature.

How does your research fit with NSF Priorities? Is this research “[potentially transformative](#)”?

Summarize how you will communicate your research findings to the scientific community.

VI. B. Broader Impacts. *In 2-3 sentences, describe the **potential outcomes** of this research. Who will benefit -- and how? (e.g., citizens of your state, assisting the elderly, reduce national energy consumption, a global issue)*

In 2-3 sentences, describe how you teach diverse audiences about your research, or involve people from underrepresented groups. How will you assure that the public has access and can understand your findings?

In 2-3 sentences, explain your “next steps.” Will you lead others and build upon your work?

How will you pursue this research strand as part of your long-range career goals?

VII. Statement Attesting to the Originality of the Research Proposal. *In 1-2 sentences, you must provide to NSF an assurance that this written plan is your original work. (NSF understands that you may be working in someone else’s lab or conducting a part of someone else’s study.) This statement attests that this plan is in your own words, and that it has not been plagiarized.*

VIII. Key Words: *Similar to what you have seen in journal articles, NSF wants you to list several descriptors that best describe or categorize your study. Think about it this way: In the future, if someone uses a search engine to find your study, what words should they enter?*