RESEARCH APPROACH OUTLINE  
(Based on The Grant Application Writer’s Workbook by Russell and Morrison)

AIM 1: BOLD AIM

INTRODUCTION = Conceptual overview of the importance of this aim  
• One sentence to justify why the work under this aim needs to be preformed  
• “The objective of this aim is to…..” (solve the problem/answer the question that this aim will address)  
• “To attain this objective, I will test the working hypothesis that…” (verbatim from the Specific Aims document)  
• “I will test my working hypothesis by using the approach of…”  
• “The rationale for this aim” (what will become possible after the research proposed in this aim is completed and that is not possible now)  
• “When the proposed studies have been completed, it is my expectation that…” (overall outcome(s) and positive impact of this aim)

JUSTIFICATION & FEASIBILITY = Lead reviewers to the conclusion that you are highly capable of accomplishing what will be proposed  
• Review of relevant literature  
  • Critical analysis  
  • Use the literature to point out relevant gaps  
• Preliminary Studies  
  • Establish that the proposed work is feasible in your hands  
  • Refer reviewers to the relevant data / figures and then lead them through it and give the conclusion.

RESEARCH DESIGN = Provide meaningful detail, not routine methodological details  
• Approach to be used  
• Overview of method(s) to be used  
• Essential reagents needed  
• Critical equipment required  
• Number of subjects / animals  
• Statistical analysis needed  
• Controls  
• Replicates that will be needed  
• How results will be interpreted  
• Time required to complete the studies

EXPECTED OUTCOMES = Highlight the return on investment  
• Summarize the expected outcomes  
• Convey how they collectively achieve the aim’s objective

POTENTIAL PROBLEMS & ALTERNATIVE STRATEGIES = Anticipate and then eliminate concerns  
• Nature of the perceived problem  
• Reason(s) why you don’t think the problem is likely to arise  
• What alternative approach(es) / strategy(ies) you would employ should the problem be encountered  
• EXAMPLE: My working hypothesis for this aim is… Although my preliminary data (see Figure X) solidly supports the hypothesis for this aim, and are complemented by recent published work (REFERENCE), there is a remote possibility that it could be invalidated when objectively tested. In that unlikely event, I would turn to ….as the next most likely explanation.

AIM 2 (same for AIM 3, if applicable):  
INTRODUCTION  
JUSTIFICATION & FEASIBILITY  
RESEARCH DESIGN  
EXPECTED OUTCOMES  
POTENTIAL PROBLEMS & ALTERNATIVE STRATEGIES

TIMELINE – Indicate when you plan to submit your R01!

FUTURE DIRECTIONS  
• Briefly summarize expected conclusions of this proposal and give a vision of the future (your next steps after the conclusion of this proposal)