

Helpful Tips for ACVS Foundation Research Grant Applications

Introduction

- **Relevance** — Write what is relevant and important to build the story for your study. At the conclusion of the introduction, the reader should have in mind the question(s) your study will address. Use the primary literature to support your premise. Make your argument with concise points and not protracted complex thoughts.
- **Impact** – It is important to convey the impact of the work. In general, the greater the clinical or scientific impact, the better the score. Keep this in mind when establishing your case; try to focus on significant, prevalent, common, impactful research questions.
- **Technology** – Use of modern or new technologies (e.g., diagnostics, therapies, etc.) in research can be persuasive but will only be scored highly if the research content is relevant and impactful at the same time.

Hypothesis

- Every study should test one or more hypotheses. Hypotheses are not proven: the study will produce data that will either support them or refute them.
- Specific aims are objectives that, when achieved, will test the hypotheses. Keep the hypotheses and aims simple and concise. Rambling and vague hypotheses and unspecific aims often indicate a lack of research precision.

Materials and Methods

- Grant reviewers (“reviewers”) want to know that you have performed due diligence and are not repeating work already done.
- Reviewers also want to know if you can actually accomplish the methods that you are setting out to perform in the given time frame. Initial pilot data is a big help in this regard. Even one test run will help reviewers to understand that you are applying yourself to the process.
- If you are setting out to use clinical cases, reviewers will need to know that the cases can indeed be procured in the time period allotted. This is a challenge so showing the reviewers data from retrospective admissions will help.
- Reviewers want to know if you are going to *learn* scientific methodology by being guided in designing a good study. Are you creating flaws from the outset through lack of thought, lack of consultation with experts, lack of design/statistical assistance or input?
- Reviewers expect this project to be YOUR training opportunity. Outsourcing a lot of tests or techniques will not be a project that achieves this goal. The reviewers want you to learn how to do scientific research.
- Although performance of the study cannot happen until funding is available, it is critically important that the study design is solid and well-thought out. As mentioned, pilot data or retrospective data to support your goals or demonstrate feasibility is very useful. Further, demonstration of accurate, basic statistical consideration is key. For example, if you seek to answer a question, but you have no rationale for your sample size, clinical effect size, type of data, or type of analysis, then the proposal will not score as well. Thus, consultation with a statistician is highly recommended.

Statistical Analysis

There is no excuse not to consult with a statistician prior to submitting the grant application. In a non-academic setting, please use resources from your veterinary institution - everyone is there to help and wish the best for your career.

Anticipated Outcome/Results

- Don't be too self-assured even if you find yourself in a big lab which has a great research record. It is more important to consider what you expect might or might not happen. This is the uncertainty of research and why testing of a hypothesis is performed.
- Consider potential pitfalls - how will those be dealt with or worked around?

Budget

Developing a budget is a huge time commitment. However, when reviewers see a detailed and thoughtful budget it means that you, as a researcher, have diligently evaluated what you are going to need and have thought through each step of your research plan.

Writing

There is nothing worse than a lack of flow and the presence of syntax errors that reflect haste and cut-and-paste efforts. It is hard to justify funding a research study that is represented by a poorly constructed grant application with text that shows a lack of care that goes beyond typographical errors. Care relates to everything from the layout of the idea, the organization of the thought process, and the work to be done. Taking care in your writing is training your mind to be careful in everything you do.