Lewis Lab tips for writing a successful grant proposal

Content
1. Get quickly to the **point** of the proposal. State the goals and objectives up front and clearly before providing introductory or background information.
2. Be explicit about how the proposal fits the RFP (request for proposals) goals. Keep in mind the overall **mission** of the funding body.
3. Provide enough **background** to place your proposed work in context. The introduction should lead obviously and inexorably to your proposed work.
4. Present detailed **methods** and show a clear understanding of their advantages and limitations. Don't gloss over potential problems: expect the panelists to know at least as much as - or possibly more than - you do about you, your work, your other funding, and the work you're proposing, so be up front. Identify contingency plans if appropriate.
5. If proposal includes **modeling**, provide an explicit justification of the mathematical tools used, with advantages and disadvantages and assumptions, spatial & temporal scales. Clearly lay out the model parameterization/calibration, analysis, validation/testing/comparison, the model output and how it will be applied.
6. Be crystal clear about the **anticipated results**. The reviewer should be able to draw a graph of the kind of data or output you will get. Better yet, provide an example.
7. End the proposal with a strong section on the **implications** and impact of the proposed work on (a) scientific progress and (b) societal issues (as appropriate). If there's not enough space, sacrifice some of the introduction or background, which is probably too long.
8. Consider adding a **timeline** of progress to show when each phase will occur (and who will be involved in it, if appropriate).
9. Be very clear about the time, space, and biological **scales** of the study and its results.
10. For **large**, multi-year, multi-disciplinary proposals,
    a. Consider a layered or **modular** plan so that pieces can be accomplished somewhat independently and as time progresses and something will come of it whether or not they work as expected.
    b. Consider an **advisory board** and stakeholder workshops as appropriate. Make contact with these groups early on to solicit input into the proposal.
    c. Consider an **adaptive management** approach to the project elements and the associated budget. Be clear how and when subsequent pieces will be focused by outcomes of earlier phases.

Organization
1. **Read** the RFP (request for proposals) instructions.
2. **Follow** the RFP instructions.
3. **Structure** the proposal to match the sections listed in the RFP, and address them all.
4. Make sure the project goals & objectives are repeated consistently in the same way throughout the proposal.

Presentation
1. Imagine yours is the last proposal of 50-100 a reviewer reads. Make it **easy** for the reviewer
2. Remember that the proposal may be the **only** piece of your work a reviewer reads, and is all they use to evaluate your ability to produce a logical, integrated, polished product.
3. Follow the requested **layout**. This is not the place for creativity.
4. Write in English, not in **jargon**. Any panel will include scientists not in your immediate field.
5. Keep **acronyms** to a minimum and define them at first usage and again in new sections if appropriate.
6. Use **formatting** to your advantage. A tired reviewer's eyes will stray to headings, bolded and italicized, and underlined text, boxes, and bulleted and numbered lists. Be judicious but effective with this..
7. Avoid small font, minimized margins, no space between paragraphs – i.e., a sea of unending text. The essence of the proposal should be able to be understood from the **headings** and subheadings.
8. Use informative **topic sentences**. Make your point at the start of each section or paragraph and then back it up – i.e., write more like a newspaper than like a scientific paper. Don't save the best for last...the reviewer may be asleep by then.
9. Consider a **table** of acronyms (don't make reviewer hunt for these), a table of contents, and a table - or at least a definition - of all model parameters (don't make the reviewer guess what they are).
10. Don't use **buzzwords** for their own sake. Define terms and make it clear you know what they mean.
11. Number or label all **figures and tables** and provide informative legends.
12. Keep a consistent **voice**, style, and formatting throughout. The proposal should not look or read like it was cut and pasted together. The lead author should actively edit the entire document.
13. Have someone (else) **proofread** the entire document. Mistakes in grammar, syntax, spelling, budgets, etc., irritate reviewers. You want your funding determined by happy reviewers. Never confound affect and effect.
14. Use **current CVs** and follow the requested format.
15. Do not hesitate to **contact** the program officer to clarify any questions you have.

Writing strategy
1. Write **early**.
2. Let it **sit**.
3. Get **feedback** from others – either detailed feedback, or from quick panel-style perusals of, say, 15 minutes. If your colleagues don't get the point with a quick read, neither will the reviewers.
4. **Revise** and rehash.
5. **Rule of thumb**: between now and the deadline, spend ¼ of the allotted time thinking about the proposal, ¼ preparing it, ¼ letting it sit (while others are reading and providing feedback), and ¼ revising.