

CRDF'S CGP GRANT WRITING TIPS

COMMON ACRONYMS

CRDF = US Civilian Research & Development Foundation

PA = Program Announcement

CGP = Cooperative Grants Program

EPS=Electronic Proposal Submission

PI = Principal Investigator

FWS = Former Weapons Scientist

IS = Institutional Support

IFS = Individual Financial Support

RFP = Request for Proposal

BEFORE YOU BEGIN WRITING

- ◆ Define your project goal(s).
- ◆ Identify the detailed objectives you will need to achieve to reach your goal(s).
- ◆ Review the Program Announcement to determine if the grant size meets your project objectives.
 - What is your timeline?
 - If you need the funding right now, you have waited too long to apply. It usually takes between six (6) months and one (1) year from the submission deadline for grants to be awarded.
 - How much funding do you realistically need to complete the project successfully?
- ◆ Decide if your project meets the following CRDF's priorities
 1. Provides the scientific community with new and useful knowledge that will advance prior work
 2. Solves important societal problems;
 3. Potentially leads to improved technologies and/or product that will provide for economic development;
 4. Advances CRDF's mission. Take time to review CRDF's website and familiarize yourself with the organization's mission and goals.

If your proposal doesn't achieve at least one of the first three goals **and** number four (4) – please do not apply.

- ◆ Read the foundation's mission statement and review their list of funded proposals.
 - Will your research have an equal or greater impact than the proposals listed? Don't force the connection.
 - You can find a list of previous CRDF awards at [Past CRDF Grant Recipients](#).

Helpful Hints

- ◆ Develop a realistic timeline for writing your proposal. To help with this process, print out the checklist in the Cooperative Grants Program Announcement and set appropriate deadlines to gather all the items. It is recommended that you finish gathering all the information and assemble your grant proposal at least one (1) week prior to the submission deadline.
 - When developing your plan for writing the proposal, be sure to schedule time to:
 1. Collect all the information required for your application
 2. Write the proposal
 3. Request assistance from colleagues to review it
 4. Make edits
 5. Translate
 6. Conduct a final review and edits
 7. Collect signatures
 8. Make copies
 9. Mail hard copies (if required)
 10. Submit via CRDF's Electronic Proposal Submission (EPS) system

- ◆ **Mark the Submission Deadline on your calendar.** Proposals will not be accepted for any reason past the deadline.
 - Do not let all of your hard work go to waste because you did not submit the document on time.

- ◆ Since CGP only funds joint research projects, communicate regularly with your co-PI.

CRDF'S FUNDING CRITERIA

- ◆ CRDF looks favorably on proposals that have both exceptional scientific merit and that encourage new scientists to enter the field – this includes junior and female scientists and students. CRDF also generally gives special consideration to proposals that engage former weapon scientists (FWS) by redirecting their extensive knowledge and experience to civilian work.

- ◆ It is a good idea to submit your proposal **at least one (1) day** before the final deadline. Even though the Electronic Proposal Submission (EPS) site allows for last minute submissions (11:59pm (23:59) Eastern Time on the deadline day), it is not a good idea to wait until the very last moment.
 - Computers do not always work when you need them to and Internet connections are not 100% reliable.
 - If you experience any difficulties submitting to CRDF, our Program Officers are not in the office past 5:00pm (17:00) Eastern Time on the night of the deadline, so they will be unable to help you troubleshoot problems should any arise.
 - If you have technical difficulties submitting your proposal through the EPS site due to an unstable Internet connection, contact your co-PI for assistance.

SPECIFIC SUGGESTIONS FOR WRITING A CGP PROPOSAL

- ◆ Read the entire Program Announcement (PA) before you begin writing. Highlight all the key points.
- ◆ It is imperative that you **follow all the directions** outlined within the PA – **read it carefully!**
 - If there is a page limit, DO NOT submit a proposal with pages exceeding the limit.
 - If the PA states that an applicant from your country is required to submit copies of the proposal to a Ministry or other government agency, do not forget to submit these.
 - Proposals that do not follow all the guidelines set forth in the PA will be declared ineligible and all the hard work that went into writing the proposal will be lost.
- ◆ All required forms are available as Word documents at the end of the PA. Each form must be filled out accurately and completely for your proposal to pass the initial proposal screening process.
- ◆ If you have any questions about the forms and the requirements, write to a Program Officer and request more information.

FORM A – Cover Sheet

- ◆ The Cover Sheet is the first portion of your proposal that the Program Officer and reviewers see. Make sure that it is complete and accurate to give a good first impression. Do not forget to include the signature of the foreign PI and the signature of the foreign Institute Director. Please see a sample of Form A on page 10 to assist you in correctly completing this form.

Abstract/Project Summary

- ◆ The abstract should provide the reader with a strong understanding of what you plan to do, how you will do it, and what you hope to accomplish.
- ◆ Although the abstract is one of the first elements within a proposal, it is usually the last section to be written.
- ◆ Summarize the key elements of your proposal in about half of a page. Treat it as a “stand alone” description of the project.
- ◆ *Seven Important Questions to Address in the Abstract*
 - What do you intend to do?
 - Why is it important?
 - What has already been done?
 - What methods will you use?
 - What results do you expect?
 - How will you analyze your data?
 - What contribution will your project make to the mission of the funder?
- ◆ Do not include any references, figures or tables.
- ◆ Do not include any proprietary information as project summaries are often considered public information.
- ◆ Define all abbreviations, acronyms and special symbols
 - Exceptions to this rule are widely-used abbreviations, such as HIV/AIDS, DNA, etc.

NARRATIVE

- ◆ Remember that the narrative portion of the proposal is your sales pitch.
 - Be persuasive.
 - Anticipate reviewers' questions.
 - Arrange your key points in a logical, incremental order.
- ◆ By reading your narrative the reviewers should come to the conclusion that your project is:
 - Important
 - Novel
 - Feasible
 - Consistent with CRDF's mission/goals
 - Worthy of funding

The following five (5) components are all key elements that should be included as part of the narrative portion of your proposal

1. Problem Statement

- ◆ Identify the specific problem and/or issue you want to solve.
 - Do not spend too much time/space in the proposal describing the importance of the problem. The problem's importance must be addressed; however, if your research is timely then reviewers will likely be aware of the issue and its relevance. The main point of a proposal is to explain how you propose to solve a problem.
 - It is usually helpful to use statistics to support your problem statement.
 - Be sure to reference relative publications. Reviewers may unfavorably judge a proposal if they feel the researchers have not conducted a thorough literature review before preparing a proposal.
- ◆ Describe the goals you will pursue to test your hypothesis.
 - Goals should be specific, measurable, realistic and timely.
 - Goals should be concise – try to use no more than 25-word statements for each goal.
 - Use specific action words to describe your activities rather than just saying “we will study.”
- ◆ Describe why your particular research efforts are important to solving this problem.
 - Explain **who** will use this research.
 - Explain **how** it will be used.

2. Action Plan

Remember that your project DESIGN is your plan for attacking the problem. Your project METHODS are a detailed description of the precise experimental techniques you will use to attack the problem.

- ◆ Describe your **project design**.
 - Explain the approach you plan to take.
 - What methods will you implement to meet those objectives, to ultimately accomplish your goals?
 - Be concise, but don't be vague.

- ◆ Create a **timeline**
 - Highlight what objectives will be accomplished and the milestones that will be reached during each time period.
 - Develop a chart or a table that outlines how long each task will take and the sequence of objectives.
 - Break the research down into phases. What resources and staff will you need during each phase?
 - A timeline is a great tool for the following reasons:
 - 1) It helps reviewers understand how your project will be structured;
 - 2) It helps your team manage the project by identifying specific points where they/you should stop and evaluate progress during the project;
 - 3) It provides key markers that will be excellent material to include in the semi-annual updates to CRDF.
- ◆ Describe how your project is a **true partnership**.
 - Explain what experience, knowledge and access to resources of both the international team and the US team are needed to complete the project.
 - Explain how both teams' expertise will complement each other.
- ◆ Illustrate how the combined competencies of both research teams will help the project meet its goals.
- ◆ Describe the **equipment** that will be utilized in conducting the research.
 - Justify the need for the equipment for which you are requesting funds to purchase.
 - Identify unique equipment your institution already owns that you will be using to conduct your research.
- ◆ Discuss the **limitations** of your research.
 - Addressing your research limitations tells the reviewers that you are aware of any potential problems and helps to evoke confidence in your abilities and understanding of your research.
- ◆ Include **visual aids**.
 - Pictures, graphs and tables serve as excellent visual representations of your work. They are a great way to help reviewers understand what you are working on and what you have already accomplished.

3. Project Results/Evaluation

- ◆ Use quantifiable, concrete and measurable statements to describe the anticipated results/expected outcomes of the project.
- ◆ Reveal how these results will address CGP's evaluation criteria and establish how your project will further CRDF's goals.
- ◆ Describe how you will analyze the data and measure your success.
 - What data will be recorded?
 - What will you be looking for in this data?
 - What statistical tests will be preformed?
- ◆ Explain how you will know whether or not you have achieved your goals.
 - Be specific - What instruments will you use? How often will you evaluate your progress?
 - The project's evaluation plan should be achievable given your resources.
 - If the implementation of your evaluation plan will require funding, make sure you include that in your budget.

4. Introduction of Your Organization/Team

- ◆ Briefly describe why your organization/team is the best group to carry out this research.
 - Detail the group's experience.
 - What other research have you or your team members been involved in that prepares you for this project?
- ◆ Describe who will work on the project.
 - What are responsibilities of each team member?
 - What are their qualifications?
 - Be concise, but remember that reviewers are interested in how participants will be used to accomplish the project's goals and whether they are they qualified for the role.
- ◆ Describe your collaboration.
 - How will the work be distributed among each team?
 - Which team is ultimately responsible for the success of each part of the project?
 - How will you communicate with each other?
- ◆ Identify and describe the role of any subcontractors or secondary collaborators. Subcontractors and secondary collaborators are individuals from institutions other than the proposal's principal organizations. They are included in your project because their skills and expertise are required to complete a task that no one on your team knows how to do or your institution does not have the appropriate equipment to complete the activity.
 - Describe their responsibilities – list the specific activities, the duration and milestones of their work.
 - Explain how their work will be monitored/ evaluated?
 - State how you will communicate with them?

5. Sustainability

- ◆ Discuss how your research will continue after this grant's two-year funding cycle has ended.
 - CRDF's Cooperative Grants Program does allow applicants to apply to future competitions, but the new proposal must show the project's initial success and how the project will be taken to the next level with additional funding.

Address other options for your project's sustainability, including approaching other foundations, possible government support, or for-profit contributions.

FORM B – Personnel Data

- ◆ The Personnel Data form is only for project participants **OTHER THAN** the two principal investigators. An example of a completed Personnel Data form is available on page 11 of this document.
 - The PI's do not need to complete a Personnel Data form for themselves as their one-page CV combined with the information requested in Form A provides CRDF with all the necessary information.

FORM C – Project Budget

- ◆ When writing a proposal for a CGP competition, it is important to carefully read all of the funding requirements. It is important to note what CRDF is willing to fund and what requests CRDF does not fund. For instance:
 - CRDF will fund Eurasian scientist salaries, but will not fund US scientist salaries.
- ◆ Please review the example on page 12 before completing your Project Budget.
- ◆ Budgets should be realistic

- Budgets that are too low indicate that you do not know the true cost of your project.
- Budgets that are too high leave room for the potential misuse of funds.
- ◆ Obtain quotes from vendors for the best possible estimate.
 - Since projects are activated months after being prepared, take inflation into account when preparing your budget.

Salaries

- ◆ Please read the PA carefully and review all the associated links under the section that discusses how to determine Individual Financial Support (IFS).
- ◆ Anyone applying for IFS must carefully examine their workload to ensure that they are not requesting payment for more than a 100% of their work time.
 - For instance, if a PI is also the department chair and spends 50% of his time handling issues related to departmental administrative duties, then he only has 50% of his work time left to devote to the research on the project. That means the maximum he can request for payment is 10 days per month. CRDF defines “full time” as twenty (20) 8-hour person-days per month, sixty (60) per quarter.

Materials/Supplies

- ◆ The term “materials” usually refers to equipment and non-consumable items. Supplies are typically consumable items such as reagents.

Travel

- ◆ Collaborative projects are generally the most effective when the partners have an opportunity to visit each others’ labs and spend time working together. CRDF encourages applicants to use grant funds for research-related travel.
- ◆ CRDF also encourages applicants to give junior scientists and female researchers the opportunity to travel and learn from the PI and senior participants on the other country’s team.

Institutional Support (IS)

- ◆ Institutions often incur expenses hosting a grant project. CRDF usually allows for up to 10% of each team’s expenses to be disseminated directly to the institution. However, the amounts may vary by competition or country. Please refer to the CGP Program Announcement for specific amounts allowed for Institutional Support.
- ◆ Institutional Support is used at the discretion of the PI’s institute. Some institutions put the money right back into the project by using it to purchase supplies. Other institutions use the funds to pay for electric and water bills. And some institutions use the support to purchase resources that will benefit everyone at the institution, for example subscriptions to scientific journals.

Cost Sharing

- ◆ Identifying cash and in-kind contributions sponsored by other agencies or individuals is an excellent way to justify the broad appeal and importance of a project.
- ◆ CRDF looks favorably on projects in which other agencies or institutions commit additional financial support to a project.
 - Please refer to the program announcement and/or CRDF’s website, www.crdf.org, for specific information on the types of financial support that are included as “cost-sharing”.

Budget Narrative

- ◆ A budget narrative is a written description and explanation of each funding category. An example of a comprehensive Budget Narrative is provided on page 13.
 - Although this section should be concise, it is an integral part of the application process. The budget narrative should provide a more comprehensive description of your budget request. The more information provided, the easier it is for reviewers to understand exactly how the grant funds will be used and why the breakdown of the funds you have suggested is critical to the success of the program.

- ◆ *Appropriate questions/points to address within your budget narrative:*
 - How were costs determined?
 - What will each person contribute to the project?
 - Explain why equipment is needed/how it will be used.
 - Provide price quotations for major equipment – funds for any individual piece of equipment valued at \$1,000 or more MUST be justified in the budget narrative.
 - Provide justification for travel.
 - Provide justification for any sub-contractors or secondary collaborators.
 - Clearly explain all cost-share contributions.

Human Subjects

- ◆ A *human subject* is defined as a living individual about whom an investigator (whether professional or student) conducting research obtains data through intervention or interaction with the individual or identifiable private information.

- ◆ CRDF requires applicants with human subjects research to provide additional documents. Such proposals must adhere to CRDF's policy and guidelines related to research involving human subjects.
 - Each proposal involving human subjects research must include:
 - Institutional Review Board (IRB) approval(s),
 - Informed Consent form(s),
 - Confirmation that the each institution has a Federal-wide Assurance (FWA) on file with the U.S. Office for Human Research Protections;
 - Completed CRDF Protocol Summary Form, which is available at http://www.crdf.org/granteeforms/granteeforms_show.htm?doc_id=305885.

 - These materials indicate an approval or an exemption of the project from human subjects requirements and provide the funding agency with an understanding that all involved will not violate the rights of the individuals being studied/investigated.
 - For additional information, please refer to CRDF's website - under http://www.crdf.org/terms/terms_show.htm?doc_id=292607.

FORM D – Other Sources of Support of Key Personnel

- ◆ One way to evaluate a team's past success is through **FORM D**. Please list all of the grants you and other award participants currently have from other funding agencies and your and their participation levels in each of those research projects. An example of completed **FORM D** is provided on page 14.

PUTTING IT ALL TOGETHER

- ◆ Double check all of the following items:
 - Is each form filled out correctly and completely – including all the appropriate signatures?
 - Is the font size within the defined limits?
 - Are the margins correct?
 - Does each section of your proposal adhere to the appropriate guidelines on length? (e.g. is your project narrative 8 pages or less, including references and visual aids?)
 - Have you proofread the document?
- ◆ Have colleagues read and critique your proposal. Also, make sure to have an English-speaking colleague (preferably the US PI) review your proposal. When the US PI proofreads the document he/she will be able to:
 1. Identify major and common grammatical mistakes;
 2. Ensure that both teams are in agreement regarding project goals;
 3. Guarantee that both teams are aware of their responsibilities.
- ◆ When combining all the elements of the final copy of your proposal, be sure to put it together in the requested order.
- ◆ Again, remember to submit all proposal documentation prior to the deadline. **Late proposals are never accepted.**

GRANT WRITING REALITIES

- ◆ CRDF receives hundreds of proposals each funding cycle. Of those proposals, about 20% are meritorious, meaning they are eligible to receive an award. However, CRDF, like most foundations, has limited funds and cannot support many exceptional proposals.
 - CRDF usually has the funding to support about between **6 and 10%** of the proposals received.

What should you do if you receive excellent reviews, but are not awarded a grant?

- ◆ Improve your proposal. No proposal is perfect - EVERY proposal can be adjusted and enhanced.
- ◆ Look for other funding sources. Revise your proposal to meet the criteria and priorities of another funder and make some of the adjustments that the reviewers recommended.
- ◆ If you decide to reapply to CRDF, rewrite your proposal.
 - Take into account the research that you or other researchers have completed in your field since you last applied.
 - Read the reviewer comments, carefully consider their suggestions and recommendations, and make appropriate changes to your proposal.
 - Also, do not assume that the requirements for each CGP Competition will remain the same each year. Print out the newest Program Announcement and read it carefully.

GOOD LUCK!