

Writing Effective Grant Applications

As you begin writing your grant application, approach the task methodically and with careful organization. A successful application hinges on clarity, precision, and adherence to specified guidelines. Be sure to meticulously follow all formatting requirements, including any necessary attachments, and adhere closely to the guidelines provided for the specific grant you are seeking.

Set Realistic Project Goals. Avoid proposing objectives that are overly ambitious and may exceed the project's capacity within the allotted timeframe. While ambition is commendable, unrealistic aims can jeopardize your application with reviewers. It's important to be realistic and ensure that the proposed workload can be reasonably accomplished within the project's timeframe.

Before drafting your application, carefully assess how your budget aligns with your research plan, ensuring that each expenditure is justified by the proposed work. Clearly explain how additional resources will support funding and specify which aims will be included in the funded project. Ensure the budget is both reasonable and well-justified.

Verify that personnel possess appropriate scientific expertise and training to meet the project goals. Verifying the expertise and training of personnel helps clarify that the project goals are realistic and achievable by illustrating to reviewers that the proposed objectives align with the team's capabilities. This helps ensure that there is not an overestimation of what can be achieved within the project's timeframe and resources in the application.

Be Organized and Logical. To ensure your application is well-organized and easy for reviewers to navigate, follow the suggested organization outlined in the relevant RFA. Use sub-headings, short paragraphs, and other formatting techniques to enhance readability and clarity. Bullet points and numbered lists aid in organizing information effectively.

Incorporate diagrams, figures, and tables with appropriate legends to assist reviewers in understanding complex information. Ensure these visual aids complement the text and are inserted appropriately. Make sure figures and labels are legible at the size they will appear in the application.

Utilize bolding to highlight key concepts, allowing reviewers to quickly scan pages and retrieve important information. This enhances readability and ensures critical points are easily discernible.

Write in Clear Concise Language. When crafting your application, remember that reviewers will sift through numerous submissions in detail. Therefore, your application stands a better

chance of success if it's easy to read and well-written. Use the following tips and examples to ensure that your application is clear and easy to understand.

- ✓ Each paragraph should begin with a clear and concise topic sentence that summarizes the main point or idea, improving readability.
- ✓ Aim for straightforward sentences with around 20 words or less to convey points effectively.

Before: In light of findings by myotonic dystrophy researchers indicating alterations in various cellular processes, it appears that targeting these mechanisms could offer potential therapeutic avenues.

After: Researchers studying myotonic dystrophy have identified changes in cellular processes, suggesting potential targets for therapy development.

- ✓ Avoid unnecessary jargon or overly technical language. While reviewers may be experts in the field of myotonic dystrophy, not all will be familiar with your specific area. Avoid overly technical terms to ensure clarity for all readers.

Before: The study will illuminate the intricate molecular pathways related to cerebral atrophy and dysexecutive syndrome in the central nervous system (CNS) manifestations of myotonic dystrophy, examining the non-canonical mis-expression of toxic peptides produced by repeat-associated non-AUG (RAN) translation, providing novel insights into potential therapeutic interventions aimed at addressing neural dysfunction.

After: The research will examine how myotonic dystrophy affects the brain, particularly looking at changes in brain structure and declines in cognitive function. It will investigate the production of toxic peptides produced by repeat-associated non-AUG (RAN) translation, offering new possibilities for treatments targeting brain dysfunction.

- ✓ Use consistent terminology, references, and writing style throughout your application to avoid confusion.
- ✓ Upon first reference, spell out all acronyms to prevent confusion among readers.
- ✓ Favor active voice over passive voice whenever possible to make your writing clear and engaging.

Before: The selectivity of our binding compound will be studied transcriptome- and proteome-wide.

After: The study will examine the specificity or selectivity of a binding compound across the transcriptome and proteome.

- ✓ Highlight important information by placing familiar details at the beginning of sentences and introducing new information at the end. In some of these cases, you may need to use passive voice.

Before: Scientists studying myotonic dystrophy (DM) have identified new factors contributing to disease progression in patients. The expansion of repetitive DNA sequences in certain genes is a hallmark of DM. These expansions disrupt normal cellular processes, leading to muscle weakness and other symptoms.

After: Scientists studying myotonic dystrophy (DM) have identified new factors contributing to disease progression in patients. A hallmark of DM is the expansion of repetitive DNA sequences in certain genes. These expansions disrupt normal cellular processes, leading to muscle weakness and other symptoms.

- ✓ Provide context by starting sentences with previously introduced information to connect new concepts to prior knowledge, aiding reader comprehension.

Before: The researchers studied a new treatment for myotonic dystrophy. It affects muscle function.

After: The researchers studied a new treatment for myotonic dystrophy. This new treatment affects muscle function.

Craft a Persuasive Proposal. Begin crafting a persuasive proposal by presenting a compelling argument for why the MDF should support your research. Highlight how your proposal aligns with the criteria outlined in the RFA, demonstrating a clear understanding of these criteria, and illustrating how your project directly addresses them.

Provide sufficient background information to ensure clarity for knowledgeable readers. This includes detailing how your proposed research will impact myotonic dystrophy overall. For example, if your research aims to develop a novel treatment for DM, explain how it addresses current treatment gaps and its potential to enhance the quality of life for individuals with DM.

Moreover, emphasize your commitment to DM research by showcasing past contributions, such as publications or presentations at scientific conferences. Additionally, highlight any relevant experience or expertise you bring to the project.

Furthermore, underscore the feasibility and scientific rigor of your project.

Provide evidence to support the feasibility of your research plan, such as preliminary data or successful pilot studies. Discuss methodologies and approaches you will employ to validate and ensure the reliability of your findings.

Lastly, showcase the expertise of collaborators who will contribute to the project's success. This may include researchers with complementary skills or expertise in areas relevant to your research. For example, if your project involves conducting genetic analyses, highlight the expertise of collaborators with a background in genetics or bioinformatics.

Revise and Seek Feedback. Initiate the editing process early and allocate ample time to gather feedback from multiple readers across various drafts. Seek input from individuals with diverse backgrounds, including DM experts and non-specialist colleagues. Consider inviting fresh perspectives from knowledgeable individuals to review your work to identify areas for improvement on specific aspects of your proposal.

Given that you've likely reviewed the same content repeatedly, encourage reviewers to assess punctuation, grammar, and flow, providing valuable feedback. For collaborative efforts involving multiple investigators, designate an editor to not only check to ensure consistency in writing style throughout the application.

Refine Your Grant Application with Feedback. Start by sharing your initial draft of the specific aims section with colleagues or mentors. This early collaboration can save significant time in the long run. Allocate sufficient time for an internal review involving collaborators, colleagues, and mentors. Incorporate feedback from this review to make necessary revisions and edits. Aim to involve both DM experts and individuals less familiar with your research to obtain diverse perspectives. Encourage reviewers to assess the application using MDF's review criteria, employing a critical eye to provide constructive feedback. After completing revisions, set aside the application for some time before revisiting it with a fresh perspective for a thorough review.

Evaluate your application based on the MDF's review criteria, reflecting on the strength and clarity of your proposal and considering how well it aligns with the organization's expectations.

Finally, proofread your application aloud to identify any lingering errors or areas that need improvement. This method can help you catch mistakes that may have been overlooked during silent reading. Carefully examine the application for typographical errors, misspellings, grammatical mistakes, and inconsistent formatting. Pay close attention to formatting guidelines, ensuring adherence to requirements such as font size, margins, and spacing. Properly label sections as instructed to prevent delays in processing. Remember, a poorly presented application could raise doubts about the quality of your research.



We encourage applicants to reach out to the MDF Chief Executive Officer, Dr. Tanya Stevenson (tanya.stevenson@myotonic.org), to refine proposals before submission. Technical issues or questions should be directed to the MDF Research Grants Manager, Dr. Nadine Ann Skinner, at nadine.skinner@myotonic.org.