

Navigating the Application Process: A Guide for Myotonic Dystrophy Foundation Grants

The following guidance may help you develop a strong application that allows reviewers to better evaluate your proposal's science and merit. This page provides tips on how to document resources and institutional support and showcase the high quality of the personnel involved in your project to reviewers and the Myotonic Dystrophy Foundation (MDF) staff and Board Members.

Before you start writing: Before you begin writing your application, be sure to carefully review the Request for Application (RFA). 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.

What reviewers look for: Understanding what reviewers are looking for and carefully preparing your application can significantly enhance its strength. During MDF's review process, we convene the MDF Scientific Advisory Committee and MDF-affiliated reviewers to evaluate applications. While various factors contribute to funding decisions, we prioritize a review of the scientific merit of the proposal. The following sections describe the criteria reviewers employ to evaluate applications, providing valuable insights into the information and content you should include to receive a favorable evaluation:

- ✓ **Overall impact on myotonic dystrophy.** This criterion evaluates the potential impact of the proposed research on improving the quality of life for individuals affected by DM. Reviewers assess how the research outcomes could lead to advancements in understanding, diagnosing, treating, or managing DM, ultimately resulting in tangible improvements in the lives of patients and their families. Factors considered may include the potential for breakthrough discoveries, innovative approaches to addressing key challenges in DM, and the scalability or generalizability of the proposed interventions or findings.
- ✓ **Commitment to myotonic dystrophy research.** This criterion focuses on evaluating the applicant's dedication to DM research and their likelihood of continuing to contribute to this field in the future. Reviewers assess the strength of the applicant's commitment based on various factors, including their past research track record, demonstrated passion for DM research, ongoing involvement in relevant initiatives or collaborations, and plans for future contributions to advancing knowledge and improving outcomes for individuals with DM. Emphasis is placed on identifying applicants who are committed to making sustained and impactful contributions to the DM research community.

- ✓ *The feasibility and scientific quality of the proposed research.* This criterion assesses the practicality, viability, and scientific rigor of the proposed research plan. Reviewers evaluate whether the proposed project is feasible within the stated timeframe, budget, and resources available. They also scrutinize the scientific quality of the research design, methodology, and analytical approach, ensuring that they are sound, well-justified, and capable of generating reliable and interpretable results. Proposals deemed infeasible or lacking scientific quality, such as those with flawed experimental designs, insufficient sample sizes, or inadequate data analysis strategies, are considered low priority for funding, irrespective of their scores on other evaluation dimensions.

Scored Review Criteria

Reviewers will consider the following criteria in assessing the scientific and technical merit of each application, assigning a separate score for each. An application does not need to be strong in all categories to be judged likely to have a major scientific impact. For example, a project that by its nature is not innovative may be essential to advance a field.

Overall impact on myotonic dystrophy. This criterion evaluates the potential broader implications and significance of the proposed research within the DM field. Reviewers assess how the research outcomes could contribute to enhancing the quality of life for individuals affected by DM. They look for projects that address critical issues or barriers in DM research and demonstrate a strong scientific foundation. Additionally, reviewers consider the anticipated advancements in scientific knowledge, technical capabilities, or clinical practices resulting from the proposed project, as well as any potential transformative changes it could bring to concepts, methods, technologies, treatments, services, or preventative interventions in the DM field.

Significance of the research to myotonic dystrophy. This criterion focuses on the importance of the proposed research in advancing the understanding, treatment, or management of myotonic dystrophy. Reviewers assess how the research fills critical knowledge gaps, addresses unmet clinical needs, or tackles challenges faced by individuals with DM. They look for projects with the potential to significantly impact the understanding of disease mechanisms, improve diagnostic methods, develop novel therapies, or enhance patient care and quality of life within the DM community.

Applicants and their commitment to myotonic dystrophy research. This criterion evaluates the dedication and suitability of the applicant(s) to conduct research relevant to myotonic dystrophy. Reviewers assess the applicant's commitment to advancing knowledge that benefits individuals with DM and their likelihood of continuing to pursue such research in the future. For Fellows, Early Career Scholars, or those in early independent careers, reviewers consider their experience and training, while for established researchers, they review their track record of accomplishments in the DM field. Additionally, for collaborative projects,

reviewers assess the alignment of complementary expertise, leadership suitability, and the appropriateness of governance and organizational structures.

Innovation of the research. This criterion assesses the degree to which the proposed research challenges existing paradigms and introduces novel approaches or concepts within the DM field. Reviewers evaluate whether the research aims to push boundaries, introduce new theoretical frameworks, methodologies, instrumentation, or interventions, or refine and improve upon existing ones. They look for projects that demonstrate creativity, originality, and the potential to drive innovation and change in DM research or clinical practice.

Feasibility and scientific quality of the research approach. This criterion evaluates the practicality, viability, and scientific rigor of the proposed research plan. Reviewers assess the overall strategy, methodology, and analytical approach to ensure they are sound, well-justified, and appropriate for achieving the project's aims. They also examine strategies to ensure the robustness and impartiality of the research, including addressing potential challenges, alternative strategies, and defining success benchmarks. Additionally, reviewers assess the feasibility of the research within the stated timeframe, budget, and available resources, as well as the adequacy of plans to address relevant biological variables, particularly in early-stage or clinical research.

Environment. This criterion assesses the scientific environment's contribution to the success of the proposed project. Reviewers evaluate the adequacy of institutional support, including access to resources such as equipment, facilities, and other physical resources necessary for conducting the research. They also consider unique features of the scientific environment, subject populations, or collaborative arrangements that may benefit the project. For Fellowship projects, reviewers assess the Sponsor's support, including the allocation of time and resources to support the project and applicant.

Components Required in a Grant Application

The following components should be included in grant applications as appropriate.

Biographical Sketches. A biographical sketch, also known as a biosketch, provides a summary of an individual's qualifications, experience, and expertise relevant to their role in the proposed project. It typically includes educational background, professional accomplishments, research interests, and relevant publications. Biosketches are used by reviewers to assess the suitability of key personnel and contributors to carry out the proposed research effectively. Biosketches are required for each proposed senior/key personnel and other significant contributors. For Fellowship applications, a Sponsor biosketch is also required. MDF uses the US National Institute of Health's (NIH) biosketch format. For more information on how to prepare a biosketch click [here](#) to be redirected to the NIH site.

Abstract. The abstract provides a concise summary of the proposed project. It outlines the research objectives, methodology, expected outcomes, and potential significance. MDF grant applications require two versions of the abstract: a scientific version, which is included with the application for review purposes, and a lay summary, intended for public dissemination if the project is funded. The lay summary needs to be written in non-technical language to make the project accessible to a broader audience. Consider this [resource](#) from the NIH on how to communicate your research to non-technical audiences.

Budget. The budget outlines the financial plan for the proposed project, including anticipated expenses and sources of funding. It details the costs associated with personnel, equipment, supplies, travel, and other project-related expenses. The budget is a critical component of the grant application, as it demonstrates the feasibility and cost-effectiveness of the proposed research. Developing the budget is a time-consuming step in the application process. Understand the specific budget requirements outlined in the RFA and work closely with your institution's grants office and department administrator. Contact grants@myotonic.org for guidance on allowability and other budget-related inquiries. For more information, see [Crafting Your MDF Budget](#).

Applicant Statement. The applicant statement provides information about the principal investigator or applicant, including their qualifications, research experience, and alignment with the goals of the proposed project. Requirements for the applicant statement vary by RFA, but may also include details about current funding, pending research applications, and a statement of commitment to the research objectives.

Environment Description. This section describes the research environment in which the proposed project will be conducted. It includes information about the facilities, resources, and support available to the research team, such as laboratory space, equipment, and institutional infrastructure. Applicants should clearly demonstrate that they possess the necessary resources to conduct the research, including equipment and laboratory space. Where possible, include letters of commitment for these resources. The environment description demonstrates the applicant's capacity to conduct the proposed research effectively.

Research Plan. The research plan outlines the proposed study, emphasizing the specific aims, objectives, methodology, and significance of the proposed project. It provides a detailed description of the research design, data collection methods, analysis techniques, and expected outcomes. Remember to address both expert and non-expert audiences, emphasizing the significance of the research and its potential impact on the DM field. For more information, see [Writing Effective Grant Applications](#).

References. The references section provides a list of citations for any sources referenced in the research plan. It includes full bibliographic details, such as author names, article or book titles, journal names, volume numbers, page numbers, and publication years. Each reference must

include the names of all authors (in the same sequence in which they appear in the publication; you can use “et al.” convention in place of listing all authors in a citation), the article and journal title, book title, volume number, page numbers, and year of publication.

Support Letters and Reference Letters. Letters of Support are statements provided by collaborators or institutions confirming their commitment to the project and outlining their specific roles and contributions. These letters should be signed and included in the application, detailing the contributions each collaborator intends to make and affirming their dedication to the work. Additionally, letters of support can serve to demonstrate institutional commitment or provide evidence of available resources for the project.

In certain grant programs, such as fellowships or early career scholar grants, reference letters may be required. The RFA will specify if reference letters are necessary. Reference letters are different than letters of support. Reference letters are written by individuals familiar with the applicant’s qualifications, such as mentors or colleagues, and they endorse the applicant’s suitability for the proposed project, the applicant’s credentials, and the feasibility of the proposed research. Be sure to review the RFA to determine which types of letters are required for the application.