

## **Insider Tips for Submitting a Successful MDA Research Grant or Development Grant Proposal**

From MDA's Scientific and Medical Advisory Committees  
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### **Relevance, Significance, Innovation:**

- Relevance is very important. Why should MDA fund your work?
- In the Significance section, clearly state how your proposed research would impact disease that is supported by MDA.
- Emphasize why this work is significant for neuromuscular disease and the MDA. Does the work address basic biology, target identification, target validation, or is it preclinical?
- While MDA is still interested in funding excellent basic biology grants, strong preference is given to those projects with foreseeable clinical relevance.
- Explain the novelty of the approach you are taking. How does it compare to work by others or previous work done by you? How will the approach ask a question not be asked by others? (Note: This aspect may not be too critical if the Significance is high. The combination of significance and innovation should be high.)

### **Feasibility:**

- Is your work feasible?
- Timelines are important.

### **Expertise:**

- Demonstrate that you have experience with the experimental methods proposed.
- Do you have the appropriate collaborations and/or consultants in place?

### **Hypothesis:**

- Give clear defined hypotheses and specific aims (not to exceed four aims). This is particularly important for grants directed at defining the role of a particular "new" ("favorite") gene/protein. Some proposals define a series of studies to define the role that a gene/protein may play but never establish a hypothesis regarding the role that the investigator(s) believe it plays.
- Remain focused on a central question and avoid being overly ambitious.

### **Pitfalls:**

- Consider alternative aims/experiments in case the aim is not successful.

### **Preliminary Data:**

- Hypothesis and experiments should be supported by preliminary data.
- Only present high-quality and convincing preliminary data.
- Preliminary data should be concise, to the point and directly relevant to the specific aims.
- If the applicant had a previous MDA grant, they should clearly outline what the outcome was (i.e., the results of their previous studies and publications that resulted from their work). Although these are not renewal grants, we want to know that the last money was used wisely.

### **Experimental Design:**

- When necessary, include statistical methods with include power analysis for the outcome parameter(s) to be used.

- Detailed accounting of vertebrate animals to be used. This is a common failing of otherwise strong grants. When a grant is rather complicated, with multiple aims/experiments that use animals, it is helpful to have a table that accounts for the animals to be used. Be sure that the animal numbers “add up.”

**Grantsmanship:**

- FOLLOW the instructions!
- Pretend you are the reader to make sure that everything is clearly spelled out. Have a somewhat naïve reader read it.
- Use the space given wisely. Don't write a five-page proposal when you are allowed 12 pages. Don't have 10 pages of background and two pages of research plan; 50:50 is the best bet.
- Embed the figures in the text if possible, so that reviewers don't have to flip back and forth between figures and text. Embedded figures should not be postage size. Reviewers' eyes are not that good.
- A table of abbreviations early in the application is helpful.
- Do a thorough literature search and include some polemics in your justification. This will convey confidence and enthusiasm for the project.
- Address information in the literature that doesn't fit your hypothesis. Provide some explanations; don't ignore it.
- Proofread, proofread, proofread!

**Development Grants:**

- These are not traditional postdoctoral fellowships. The reviewers are looking for “high achievers,” who have contributed significantly to their field, and a research proposal that has the potential to propel the applicant into an independent position (i.e., not a carbon copy of one of the mentor's research grants).

**Resubmission:**

- Persistence pays! If you are not funded the first two rounds, address ALL of the concerns and resubmit.