STEM Faculty Launch

Research Statement Review Metrics

1) What are the major strengths of this statement?

The statement strengths in each group varied considerably. That said, the ones that summarized past research well, but also focused on future ideas and potential sources of funding were among the strongest ones.

2) What are the major weakness of this statement?

In nearly all cases, statements did not address the importance, innovation, and broad impact of their research and of their proposed research. They also often focused too much on reiterating the applicant's published work rather than focusing on the research program that they are proposing to do. Also, in some cases proper references were not given, potential sources of funding were not specified. Some statements were too technical.

3) Is its length and content appropriate?

The lengths were usually sufficient, although sometimes too short. The content was often too technical for a person outside of the field to appreciate (see below).

4) Is your statement written at an appropriate level for scientists outside of your field to appreciate?

In most cases, the research statements were presented at a depth much greater than what a person outside the field would be knowledgeable in. This often results in the reviewer paying little attention to the research statement and the person's application. It is advisable to prepare the statement in such a way that scientists outside the field can also get a good idea about past research accomplishments and future goals.

5) Does your research statement tell a compelling narrative? Does it draw readers into your research "story"?

A. Is there a clear statement of what the problem is that you are attempting to solve?

   Often research statements reviewed did not contain a clear reason for why the person was pursuing or had pursued this avenue of research. This reason often can be used to gain a reader's interest.

B. Do you describe your research hypothesis and methods and at an appropriate level for the audience?

In only about half of the research statements the applicants included their research hypothesis. Methods were almost always over explained. This is an important area that can be improved.

C. Did you describe how your proposed method is innovative?

The research statements rarely included innovative aspects of their methods. This is an area in which there is room for improvement.

D. Did you address the broad impacts to society that would occur by solving this problem?

Similarly, this was an area neglected in the statements, and inclusion of broader impacts to the field and the society will make these statements a lot stronger.

6) Does it include appropriate references?

In many cases, the references were not an issue. Most of the group members provided a good set of references. However, care should be taken not to have all self references or omission of your own work.

7) Does it contain evidence of previous experience and expertise in the proposed research ideas?

Most of the statements contained evidence of previous experience, however, some of the statements lacked references to back claims. Expertise in proposed areas can be improved in all the statements.

8) Did you present a plan of potential grant programs that you can apply to?

Only a small percentage of the research statements included funding resources. Specific mentions of funding agencies, and even specific programs will be beneficial.

9) Do you clearly show how your research is independence from your advisor's research program?

This is an area that was generally lacking in nearly all of the statements. Some of the statements even mentioned potential continuation of research or collaboration opportunities with the research advisor. While it is important to show evidence of past and current research, it is extremely important to show your independence from your advisor in your future plans.