Intellectual Merit Criterion

Overall Assessment of Intellectual Merit
Very Good

Explanation to Applicant
is academically talented and very experienced. She is a first generation college graduate how has numerous research presentations, abstracts and publications. Her research plan is succinct and well written.

Broader Impacts Criterion

Overall Assessment of Broader Impacts
Excellent

Explanation to Applicant
 has participated in many outreach opportunities, and has vowed to continue to volunteer as a graduate student. Her goal is to mentor students technically and with career advice.

Summary Comments
is a very promising scientist whose goals reach beyond the lab and into the community. She has the intellect, drive, and passion to succeed.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit
Very Good

Explanation to Applicant
The applicant had an impressive undergraduate performance. The applicant acquired valuable laboratory experience as an undergrad, completing a molecular biology senior thesis project involving cloning and studying a fluorescent fusion protein. After undergraduate coursework was complete, the applicant was productive in a research position at studying cytokines. This resulted in several presentations locally and internationally, and, impressively, a first author publication and a middle author publication in just two years. The research plan could be simplified with less technical jargon, and fewer references to specific techniques and procedures by their name only. It was not clear from the statement or letters the extent of applicant's contribution to the ideas and approach in the research plan. Support letters describe a motivated, talented, early career scientist.

Broader Impacts Criterion

Overall Assessment of Broader Impacts
Excellent

Explanation to Applicant
The applicant stresses a role for science outreach in her career vision for the future. She has participated in research training program for under represented and low socioeconomic groups and has judged research symposia to help high school students of low socioeconomic class. The applicant presents a well thought out philosophy for mentoring students, based on her experiences as mentee and mentor.

Summary Comments
The applicant has compiled an impressive list of academic and research achievements at a relatively early stage, including top grades and a first author publication. The applicant's research plan was probably more appropriate for a targeted grant to that field.

**Intellectual Merit Criterion**

**Overall Assessment of Intellectual Merit**  
Excellent

**Explanation to Applicant**  
The applicant is on a clear career track to becoming a successful scientist. She had an excellent GPA from college, conducted full-time research at [Redacted] for two years, and was admitted to the [Redacted] program at [Redacted]. She has multiple awards and two publications, including a first-authored one. Not surprisingly, all three referees ranked her very high among the students they have taught.

**Broader Impacts Criterion**

**Overall Assessment of Broader Impacts**  
Very Good

**Explanation to Applicant**  
The applicant is highly dedicated to educational and outreach events. As two referees pointed out, she actively promotes the involvement of women and minorities in science.

**Summary Comments**  
This is a strong application from a talented, motivated and productive graduate student. The research plan is well written, straightforward and aims to address an important question in immune cell signaling. There is also strong evidence that the applicant has and will actively participate in outreach services. There are a couple minor concerns: 1. Because ZFAND6 knockout induces ISG expression in the absence of any apparent effects on type I IFN, the applicant should probably consider the possibility of a DNA damage-independent mechanism for ZFAND6. 2. The applicant's current lab is part of a large cancer center and, as she pointed out, the proposed research may have important applications in treating human diseases such as cancer. Therefore the application seems to be more suitable for NIH.