Information for GRFP Letter Writers (Tips from NSF: <u>https://www.nsfgrfp.org/reference_writers/tips/</u>

- 1. Remember that your letter cannot exceed two pages!
- 2. The GRFP program is investing in future researchers, not funding a single research project. Be sure that you talk about the student's skills and potential to be a successful and innovative independent researcher.
- 3. Academic ability and preparation matter. Provide what details you can about your student's readiness for graduate work and commitment (if you know of it) to a career in research.
- 4. If you think highly of your student, use superlatives. Other letter writers will!
- 5. In addition to details regarding academic preparation and the research plan, you may be able to provide details and/or examples of how the student demonstrates work ethic, commitment to diversity, teamwork and/or overcoming obstacles may help demonstrate the review criteria. Details of personal interactions or occurrences that demonstrate these qualities stick with the reviewers as they are reading many applications.
- 6. Remember also that the reviewers will be looking to see how the applicant's preparation, personal background, goals and research aspirations demonstrate the two main criteria of Intellectual Merit and Broader Impacts (more on the review criteria from NSF below).
- 7. The NSF GRFP website include advice and information for letter writers. Here are links to:
 - a. An information page for reference writers that review the criteria and provide links to FAQs and tips.
 - b. A <u>video tutorial</u> for letter writers.
 - c. A list of <u>requirements and instructions</u>.

Important excerpts from the NSF GRFP Guide are provided here:

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

Intellectual Merit: The Intellectual Merit criterion encompasses the potential to advance knowledge;

and

Broader Impacts: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to:

a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and

b. Benefit society or advance desired societal outcomes (Broader Impacts)?

2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?

3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?

4. How well qualified is the individual, team, or organization to conduct the proposed activities?

5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Additionally, Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the US; and enhanced infrastructure for research and education.

Additional Solicitation Specific Review Criteria Applicants are reviewed on their demonstrated potential to advance knowledge and to make significant research achievements and contributions to their fields throughout their careers. Reviewers are asked to assess applications using a holistic, comprehensive approach, giving balanced consideration to all components of the application, including the educational and research record, leadership, outreach, service activities, and future plans, as well as individual competencies, experiences, and other attributes. The aim is to recruit and retain a diverse cohort of early-career individuals with high potential for future achievements, contributions, and broader impacts in STEM and STEM education.