TITLE

Project Summary (1page): <mark>The Project Summary consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the broader impacts of the proposed activity. The overview includes a description of the activity that would result if the proposal were funded and a statement of objectives and methods to be employed. The statement on intellectual merit should describe the potential of the proposed activity to advance knowledge. The statement on broader impacts should describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes. The Project Summary should be informative to other persons working in the same or related fields, and, insofar as possible, understandable to a broad audience within the scientific domain. It should not be an abstract of the proposal.</mark>

Project Description (including Results from Prior NSF Support): 15 pages

- The Project Description should **provide a clear statement of the work to be undertaken and must include the objectives for the period of the proposed work and expected significance; the relationship of this work to the present state of knowledge in the field, as well as to work in progress by the PI under other support.**

- The Project Description should <mark>outline the general plan of work, including the broad design of activities to be undertaken</mark>, and, where appropriate, provide a clear description of experimental methods and procedures. Proposers should address <mark>what they 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.</mark> The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified. These issues apply to both the technical aspects of the proposal and the way in which the project may make broader contributions.

- **The Project Description also must contain, as a separate section within the narrative, a section labeled "Broader Impacts"**. This section should provide a discussion of the broader impacts of the proposed activities. <mark>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 the achievement of societally relevant outcomes.</mark> 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 U.S.; use of science and technology to inform public policy; and enhanced infrastructure for research and education. These examples of societally relevant outcomes should not be considered either comprehensive or prescriptive. Proposers may include appropriate outcomes not covered by these examples.

- <mark>Plans for data management and sharing of the products</mark> of research, including preservation, documentation, and sharing of data, samples, physical collections,

curriculum materials and other related research and education products should be described in the Special Information and Supplementary Documentation section of the proposal.

Results from Prior NSF Support: The purpose of this section is to assist reviewers in assessing the quality of prior work conducted with prior or current NSF funding. If any PI or co-PI identified on the proposal has received prior NSF support including:

• an award with an end date in the past five years; or

• any current funding, including any no cost extensions,

information on the award is required for each PI and co-PI, regardless of whether the support was directly related to the proposal or not. In cases where the PI or any co-PI has received more than one award (excluding amendments to existing awards), they need only report on the one award that is most closely related to the proposal. Support means salary support, as well as any other funding awarded by NSF, including research, Graduate Research Fellowship, Major Research Instrumentation, conference, equipment, travel, and center awards, etc.

The following information must be provided:

(a) the NSF award number, amount and period of support;

(b) the title of the project;

(c) a summary of the results of the completed work, including accomplishments, supported by the award. The results must be separately described under two distinct headings: Intellectual Merit and Broader Impacts;

(d) a listing of the publications resulting from the NSF award (a complete bibliographic citation for each publication must be provided either in this section or in the References Cited section of the proposal); if none, state "No publications were produced under this award."

(e) evidence of research products and their availability, including, but not limited to: data, publications, samples, physical collections, software, and models, as described in any Data Management Plan.

Unfunded Collaborations: Any substantial collaboration with individuals not included in the budget should be described in the Facilities, Equipment and Other Resources section of the proposal (see Chapter II.D.2.g) and documented in a letter of collaboration from each collaborator. Such letters should be provided in the supplementary documentation section of Research.gov.

References Cited (no page limit): Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication.

Budget and Budget Justification: The budget justification provides a more detailed breakdown of proposed spending in each category as well as a justification supporting the numbers provided in each budget category. This information is relied upon by NSF in

formulating the total award amount and final award budget that is incorporated into any resultant award. **Each proposal must contain a budget for each year of support requested. The budget justification must be no more than five pages per proposal.**

While letters of collaboration are permitted, unless required by a specific program solicitation, letters of support should not be submitted as they are not a standard component of an NSF proposal. A letter of support is typically from a key stakeholder such as an organization, collaborator, or Congressional Representative, and is used to convey a sense of enthusiasm for the project and/or to highlight the qualifications of the PI or co-PI.