RIGOR AND TRANSPARENCY May 17, 2016

	Applies to which applications?	Where will I find it in the application?	Where do I include it in my critique?	Addition to review criteria	Affect overall impact score?
Scientific Premise	All	Research Strategy (Significance)	Significance	Is there a strong scientific premise for the project?	Yes
Scientific Rigor	All	Research Strategy (Approach)	Approach	Are there strategies to ensure a robust and unbiased approach?	Yes
Consideration of Relevant Biological Variables, Such as Sex	Projects with vertebrate animals and/or human subjects	Research Strategy (Approach)	Approach	Are adequate plans to address relevant biological variables, such as sex, included for studies in vertebrate animals or human subjects?	Yes
Authentication of Key Biological and/or Chemical Resources	Project involving key biological and/or chemical resources	New Attachment	Additional review considerations	Comment on plans for identifying and ensuring validity of resources.	No

- 1. The scientific premise for an application is the research that is used to form the basis for the proposed research question(s). ADD A SENTENCE UNDER SIGNIFICANCE TO ADDRESS THIS.
- 1. Rigorous experimental design for valid robust and unbiased results. **Scientific rigor** is the strict application of the scientific method to ensure robust and unbiased experimental design, methodology, analysis, interpretation and reporting of results. This pertains to the PROPOSED research. **ADD A SENTENCE UNDER APPROACH TO ADDRESS THIS.**
- 2. Consideration of relevant biological variables. Biological variables, such as sex, age, weight, and underlying health conditions, are often critical factors affecting health or disease. In particular, NIH expects that sex as a biological variable will be factored into research designs, analyses, and reporting in vertebrate animal and human studies for definitive research. (Not expected for exploratory research.) Strong justification must be provided for applications proposing to study only one sex.

## IF APPLICABLE, ADD A SENTENCE UNDER APPROACH TO ADDRESS THIS.

3. Authentication of key biological and/ or chemical resources. Key biological and/or chemical resources include, but are not limited to, cell lines, specialty chemicals, antibodies and other biologics. Key biological and/or chemical resources may or may not be generated with NIH funds and may differ from laboratory to laboratory or over time; may have qualities and/or qualifications that could influence the research data; and are integral to the proposed research. IF APPLICABLE, ADDRESS IN ADDITIONAL REVIEW CONSIDERATIONS.