NIH Requirements on Rigor and Reproducibility for most research grant applications due on/after January 25, 2016

NIH Rigor and Reproducibility overview page http://grants.nih.gov/reproducibility/index.htm
Notice- Implementing Rigor and Transparency in NIH & AHRQ Research Grant Applications NOT-OD-16-011
Rigor and Reproducibility, Research & Training site http://www.nih.gov/research-training/rigor-reproducibility

New Requirement	Requirement Description and Guidelines/References	Proposal Location
Scientific Premise	*Describe the scientific premise for the proposed project, including consideration of the strengths and weaknesses of published research or preliminary data crucial to the support of your application.* Scientific premise concerns the quality and strength of the research used to form the basis for the proposed research question. NIH Extramural Research blog article FAQs	**Significance**
Scientific Rigor	*Describe the experimental design and methods proposed and how they will achieve 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 includes full transparency in reporting experimental details so that others may reproduce and extend the findings. NIH Extramural Research blog article FAQs	**Approach**
Consideration of Relevant Biological Variables	*Explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans. For example, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex.* Other biological variables for humans may be age, body mass index (BMI), socioeconomic status, or underlying health conditions for humans. For vertebrate animals the strain, the vendor source or supplier, the age of the animals and housing conditions (room temperature, light/dark cycles) may need to be considered, depending on the research question. NOT-OD-15-102 FAQs	**Approach**
Authentication of Key Biological and/or Chemical Resources	NIH expects that key biological and/or chemical resources will be regularly authenticated to ensure their identity and validity for use in the proposed studies. These are resources that may differ from lab to lab, could influence results, and are integral to the research. These include, but are not limited to, cell lines, specialty chemicals, antibodies, and other biologics. NOT- OD-16-011 FAQs	**Authentication Plan attachment** No more than one page is suggested. If the Research Strategy does not propose use of key biological and/or chemical resources, a plan for authentication does not need to be included. No attachment is necessary in this case." - FAQs