



THE PEER-REVIEW SYSTEM IS THE BEST MECHANISM TO AWARD MERITORIOUS RESEARCH

The American biomedical and biological research enterprise has made the U.S. the unquestioned global leader in scientific innovation and productivity. The peer-review system is one of the crucial pillars of this research enterprise. Peer review is a multi-tiered process by which applications for funding are reviewed by colleagues and scored based on scientific merit and innovation. This system ensures that only the most scientifically meritorious ideas and concepts receive federal funding. Peer review is used by every major federal funder of scientific research, including the National Institutes of Health and the National Science Foundation, and it is largely free of fraud and conflict of interest.

How does peer review work? The process begins when scientists submit grant applications to funding agencies. These agencies assemble a group of 20-30 scientific experts, termed a study section or review panel, to evaluate grant applications. The study sections score each grant based on the importance of the work, the feasibility of the experiments and the ability of the applicant to complete the work in a timely fashion. Grant applications that are highly innovative and show a clear relevance for the scientific endeavor are scored as meritorious. Study sections report their scores to the funding agency, which then evaluates the applications again to ensure that the objectives fall within the goals of the agency. Finally, the agency balances the number of awards it can make with its budget and grants funding only to the highest scoring applications.

The nature of scientific research makes knowing the outcome of proposed experiments impossible. The outcome of research cannot be guaranteed, and the benefits may be realized only years or decades after it was conducted. However, due to the peer-review process, the American public can be assured that the work done with their tax money is the most likely to provide a scientific or health benefit for the nation. Peer review is a rigorous method to determine which applications deserve funding and which do not. Currently, less than one in seven grants submitted to the NIH or NSF receive funding, which is indicative of the degree of competition and high quality of the proposed research. ASBMB wholly supports the work of scientists who have endured the rigors of the peer-review process and been awarded funding. Likewise, the ASBMB opposes any attempt by Congress or other entities to undermine peer review through superficial analysis and judgment of grant applications outside of the peer-review process.