



American
Physical
Society

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Raymond Bowen
Chairman
National Science Board
Room: 1225N
4201 Wilson Boulevard
Arlington, VA 22230

Dear Chairman Bowen,

As the elected leadership of the American Physical Society, representing more than 48,000 physicists in universities, national laboratories, and industry, we are writing to express our deep concern about the proposed revisions to the National Science Foundation's merit review criteria.

We believe the revisions inevitably will lead the NSF away from its historic role of sponsoring a broad portfolio of research that is discovery driven rather than use inspired. We draw our inference from the directive contained in the revised criteria that NSF should align its research programs with a set of national goals that emphasize the worth of the envisioned applications of research rather than the worth of the scientific knowledge emanating from research. While these goals are laudable in themselves, we believe the proposed revisions will alter the stewardship of discovery-driven science that has been the hallmark of the NSF for more than six decades and has distinguished it from all other federal agencies.

The Department of Agriculture, the Department of Defense, the Department of Energy, NASA, the National Institutes of Health, the National Institute of Standards and Technology, NOAA and the U.S. Geological Survey all sponsor research that is primarily associated with their agency missions, and in the aggregate they account for more than 90 cents of every dollar the federal government spends on research. Allocating 10 cents of the federal research dollar to one agency charged with promoting scientific excellence wherever it leads is not only appropriate but also essential to the overall performance of the R&D enterprise.

Altering NSF's merit review criteria to take into account goals such as economic competitiveness, national security, and partnerships between academia and industry that are already the focus of other agencies will diminish the richness of American science and constrict the pipeline of transformational discoveries that often flow from curiosity-driven research. We urge the National Science Board to remove the problematic language from the "principles" and "broader impacts" section of the merit review criteria.

Sincerely,

Barry C. Barish

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Michael S. Turner

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CC: John Bruer, Chairman, National Science Board Merit Review Criteria Taskforce
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