



July 12, 2006

The National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

Dear Colleagues:

The American Association for the Advancement of Science (AAAS) welcomes the opportunity to comment on the Draft National Science Foundation (NSF) Strategic Plan. AAAS is the world's largest multidisciplinary scientific society and publisher of the journal, *Science*. AAAS was founded in 1848, and includes 262 affiliated societies and academies of science, representing 10 million individuals. *Science* has the largest paid circulation of any peer-reviewed general science journal in the world, with an estimated total readership of over one million.

AAAS commends NSF for its commitment to "strengthen fundamental research across the full spectrum of science and engineering" in its draft plan. From our unique perspective, we recognize the importance of a broad, balanced portfolio of R&D investments at NSF. The need for strong support across all scientific fields comes both from the increasing interdependence of physical, biological, behavioral, and social sciences, and from the importance of all these fields to innovation and to the improvement of the economy, health, security, and quality of life of all Americans. Every NSF directorate—from the behavioral and social sciences through the life sciences, to math and physical sciences and engineering—plays a critical role in this important work.

In addition, AAAS supports the emphasis shown in the strategic plan for education. The National Academies' report *Rising Above the Gathering Storm* urged major investment in math and science education and teacher training as a critical component of what is now called the American Competitiveness Initiative. NSF, as an organization that supports quality research, is well suited to develop, pilot, evaluate, and disseminate techniques to improve the teaching of science, including authentic experiences of how science is conducted. The knowledge gained from these endeavors is critical to provide students with a solid foundation in math and science. Inquiry-based, hands-on, active learning is far more effective in math and science education than memorization and excess jargon. These points have been emphasized in the outstanding AAAS Program Project 2061, including its reports *Science for All Americans* and *Benchmarks for Science Literacy*. The systemic change projects NSF has supported for K-5 and middle school contribute to these advances. Though a significant science education unit should stay within the NSF, much improvement can be made in the Department of Education.



We look forward to the implementation of the Strategic Plan and the many discoveries and solutions to societal problems that will be facilitated by its implementation.

Warm regards.

Sincerely yours,

Gilbert S. Omenn, M.D., Ph.D.

Chairman of the Board of Directors, AAAS

Professor of Medicine, Genetics, Computational Biology, and Public Health, University of Michigan