THE POLICY SCIENCES CENTER, INC.

Project Director: DR. LLOYD ETHEREDGE 7106 Bells Mill Rd. Bethesda, MD 20817-1204

Tel: (301)-365-5241

E-mail: lloyd.etheredge@policyscience.net

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Dr. Phillip Sharp, Chair - AAAS Committee on Council Affairs Dr. William Press, Chair - AAAS Council 1200 New York Ave., NW Washington, D.C. 20005

Re: The AAAS/NSF Accountability Process: A Background Document by Dr. Suresh

Dear Dr. Sharp, Dr. Press, and AAAS Council Members:

As background to the AAAS Council's Accountability process with the current NSF Director and NSB Chair, I enclose a reference copy of Dr. Suresh's coauthored claim about NSF and America's Scientific Merit, peer review system: "Merit Review: Assuring Gold Standard Science Around the Globe." The testament was uploaded to the White House Website on May 14, 2012. It was intended to promote America as an exemplar for an international conference of nearly 50 leaders of science-supporting agencies from around the world. Without Scientific Merit review, Dr. Suresh warned: "science funding is ever at risk of falling prey to social biases or political agendas."

However, as the truth has emerged, Dr. Suresh and NSF - albeit claiming that they are "renowned for strict adherence" - actually have rewritten the rules and artfully lowered the standards they claimed in public. They quietly - without telling most of America's scientists - shifted control, and the original (Vannevar Bush) "Gold Standard" Scientific Merit peer review system to "advisory only" status. "Merit" review - rather than being a shorthand term - obfuscates a cornucopia of expanding and mandated political and interest group re-weightings and costly giveaways and the real, higher and later, decision processes of science funding that decide program and budget issues and individual and institutional awards behind closed doors.² America's National Science Foundation has turned itself into a controversy-avoiding *de facto* political ally of the Republican Party, with behind-closed-door rules and pressures that have, for 30+ years, suppressed relevant social science. For example, Dr. Suresh still blocks any honest broker testing of Republican theories (e.g., the recent "47%" claim by Governor Romney) and rapid tests of neuroscience theories about societal problems involving Blacks and lower status populations apparently remain forbidden. How can our nation's scientists retain credibility on university campuses when the "47%" claim cannot be tested?

The core of Suresh's claim is right: America's strength *is* in the scientific agencies (e.g., NIH. NASA, FDA) that maintain the Gold Standard. But Suresh's NSF is in serious trouble, with falling rates of innovation and a degree of growing politicization and mismanagement that is beyond the capability of any single individual in the governance structure to reverse. If the AAAS Council wants to see Suresh and the future clearly, it can look to the stewardship of the social sciences, and notably the destruction of Economics. How would responsible, eminent scientists like Vannevar Bush has responded to a catastrophic breakdown of theories and data systems, and a scientific failure - in a vital area of stewardship - to be in contact with reality? ³

- Concerning Dr. Suresh's (blocked) studies of neuroscience and hierarchical psychodrama (with a rationale about racism that I do not understand and that Dr. Leshner did not address in his Report) may I bring to your attention a <u>JAMA</u> editorial by Dr. Michael Lauer, MD, Director of the Division of Cardiovascular Sciences at the (NIH) National Heart, Lung and Blood Institute: "[D]espite 50 years of epidemiological knowledge and despite numerous therapeutic advances, risk factor burdens among minority populations are unacceptably high and consequential." ⁴ One of the important hypotheses about these, and many other societal problems affecting lower status populations, is the exciting and potentially transformative suggestion of a Primate Subordination Syndrome that apparently cannot be rapidly evaluated by social scientists until Dr. Suresh and the NSF governance structure are replaced. We should be deeply grateful that trustworthy scientists like Dr. Lauer serve in government, and in agencies that are committed to rapid learning. There are human challenges that have nothing to do with whether academic scientists are perceived as "too liberal."

At this point, I view a No Confidence resolution as a simple communication of fact. And I thank you for your attention to these concerns and problems.

Yours truly,

Dr. Lloyd S. Etheredge

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Merit Review: Ensuring Gold-Standard Science Around the Globe

Posted by John P. Holdren and Subra Suresh on May 14, 2012 at 09:00 AM EST. White House OSTP blog.

Three years ago, President Obama spoke at the National Academy of Sciences in Washington, D.C., and called upon American scientists and engineers to work more closely with the international science community, even as he committed to boosting investment in domestic science and technology to new heights. That call for international collaboration resonated with U.S. researchers and research institutions for a number of reasons.

First, as the President noted, science, technology, and innovation often proceed more rapidly when creative minds from varied backgrounds share their insights. Second, especially in these economically trying times, more can be done when costs and risks are broadly shared. And third, a growing number of the challenges being addressed by science and technology—energy independence, better healthcare at lower cost, and improved food security, among others—are global in character.

Yet international collaboration poses unique challenges. Among the most important is the uneven commitment among nations to the highest standards of "merit review"—the gold-standard practice by which research proposals are judged by researchers' peers to determine in a fair and evidence-based manner whether those proposals are worthy.

Without merit review, science funding is ever at risk of falling prey to social biases or political agendas. Experts simply can't be beat when it comes to assessing the likelihood that a proposed experiment will deliver the intellectual and material goods it promises.

That's why it is so significant that, for the first time ever, the heads of the primary science-funding agencies from nearly 50 countries will gather in Arlington, Va., on May 14 and 15 to craft and release a common set of merit-review principles and to create a Global Research Council to develop additional best practices for collaboration. The six principles they will initially agree to—which assert the essential value of expert assessment, transparency, impartiality, appropriateness, confidentiality, and integrity and ethics—are critical to putting the global research enterprise on a shared foundation that will not only enhance the quality of science but also bolster public trust in that science.

Merit review is not a uniquely American practice. But U.S. research-funding institutions such as the National Science Foundation (NSF), the nation's largest funder of non-biomedical research in all fields of science and engineering and the convener of this week's Merit Review Summit, are renowned for their strict adherence to it. The process depends upon thousands of subject-matter experts volunteering a few days per year to sit in modest meeting rooms and rank in a fair, transparent, and competitive manner the quality of various research proposals—more than 40,000 of which are submitted every year to the NSF alone. It is a painstaking endeavor but the result is clear: basic research selected for funding by the NSF has led directly to cell-phone technology, MRI scanners, and the Google search engine, to

name just a few outcomes that today are valued in the billions of dollars, generating entirely new industries and countless jobs.

Why should Americans care if other nations commit to the principles of merit review? For one, U.S. researchers competing for global funds risk losing their fair share if other governments do not ensure merit-based review of U.S. proposals. For another, U.S. collaborators are put at risk if their partners are not committed to ethical standards and scientific integrity. And U.S. economic interests can be seriously harmed by colleagues or competitors who do not respect confidentiality and intellectual property.

By contrast, with broad agreement on the principles underlying merit review, American scientists can take full advantage of the free exchange of information that has long fueled scientific progress, even as they collaborate with colleagues in far-flung nations that—ready or not—are investing more and more in science and technology. We already know that the global scientific community's appetite for international collaboration is strong: 32% of U.S. research articles in 2010 were internationally coauthored, up from 23% in 2000. And the number of science and engineering articles in which U.S. researchers shared authorship with foreign researchers more than doubled between 1995 and 2010.

There is no better time for the world's nations to agree on common standards for merit review. In today's global economy, good science anywhere in the world is good for science—and good for people—everywhere in the world.

John P. Holdren is Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology Policy. Subra Suresh is Director of the National Science Foundation.

Notes

- 1. This is the kind of lie by a public official that unfairly damages the social sciences, institutions, individual careers, and the nation. Our nation's university administrations, undergraduates, and faculties, Trustees, news media and the public are led to believe that the irrelevance and stagnation of the social sciences arise from the operation of a peer-judged Scientific Merit review process of their best ideas.
- 2. Any statistical claim of "typical" adherence is not the "strict" adherence that NSF publicly advertises.

- 3. A standard, status-invoking, NSF defense is to claim that criticism has come from scientists with lesser scientific standing. However, these defenses are not available to Dr. Suresh and the NSB governance structure. Dr. Suresh et al. cannot claim Scientific Merit decisions when they have received warning letters about Economics written by Dr. Reischauer, currently Chair of the Harvard Corporation's Executive Committee. And when (concerning the national dependency hypothesis) an eminent psychiatrist, David Hamburg, MD (former President of the Institute of Medicine and of AAAS) also has supported the scientific merit of investing in reality-connected, national capabilities for rapid learning.
- 4. Quoted, Amina Khan, "Blacks Twice as Likely to Die of Coronary Heart Disease as Whites," Los Angeles Times, November 8, 2012. Online at http://www.nhlbi.nih.gov/news/spokespeople/lauer-michael.html.