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Chief Executive Officer and
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July 13, 2005

The Honorable Joe Barton, Chair
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

On behalf of the American Association for the Advancement of Science (AAAS), the world's largest general science society and the publisher of the peer-reviewed journal, Science, I am writing to express deep concern about letters recently sent by the Committee to several scientists, including Drs. Michael S. Mann, Malcom K. Hughes, and Raymond S. Bradley, regarding their research in climate science.

We very much appreciate the Committee's interest in this important field. Your letters, however, in their request for highly detailed information regarding not only the scientists' recent studies but also their life's work, give the impression of a search for some basis on which to discredit these particular scientists and findings, rather than a search for understanding. With all respect, we question whether this approach is good for the processes by which scientific findings on topics relevant to public policy are generated and used.

Studies cited in the reports of the Intergovernmental Panel on Climate Change (IPCC) have been subjected to multiple levels of scientific peer review, first in achieving publication in a peer-reviewed scientific journal (which is a prerequisite for consideration by the IPCC) and then in multiple layers of the IPCC process itself. Where contending interpretations arise, these continue to be properly pursued over time in the peer-reviewed scientific literature and in the frequent assessments of such literature by groups such as the National Academy of Sciences and the IPCC.

While we fully understand that the policy-making functions of the Congress require integrating the best available understanding of relevant science with other considerations, we think it would be unfortunate if Congress tried to become a participant in the scientific peer-review process itself. More than that, we are concerned that establishing a practice of aggressive Congressional inquiry into the complete professional histories of scientists whose findings may bear on policy in ways that some find unpalatable could have a chilling effect on the willingness of scientists to conduct work on policy-relevant scientific questions.

In the particular case of the work of Drs. Mann, Hughes, and Bradley on the temperature history of the Earth, these studies have been peer-reviewed in connection with their publication in Nature, Geophysical Research Letters, Science, and elsewhere. The papers in question have described the methodology as well as the findings, and additional information has been provided in on-line supplements to the papers (an increasingly common practice in the science community).

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As you state in your letter, the studies by Mann *et al.* were part of the basis for findings presented in the IPCC report: *Climate Change 2001: The Scientific Basis*. This having happened is a reflection of the Mann *et al.* work's passing muster in further layers of peer review within the IPCC process itself. The IPCC does not conduct research on its own, instead engaging top scientists from around the world to assess the current state of knowledge as reflected in articles published in peer-reviewed journals. There were more than 100 authors of Chapter 2 in the IPCC's 2001 "Scientific Basis" report, where the Mann *et al.* work was cited, and two extensive rounds of review by scientific experts and government representatives were conducted after those authors agreed on their initial draft. It should be added that the Mann *et al.* work was far from the only basis for the conclusion that Northern Hemisphere temperatures in the last part of the 20th century were likely the warmest in 1000 years; a variety of independent lines of evidence, summarized in a number of peer-reviewed publications, were cited in support of this conclusion.

It is true that studies that challenge the findings of Mann *et al.* have subsequently been published, as have other studies that support the Mann *et al.* findings. This point-counterpoint process is how science normally progresses. There is nothing about the way it is proceeding in this particular case that ought to arouse Congressional concern about federally-funded climate science or climate science in general. The peer-reviewed literature on Earth's temperature history will again be reviewed in the 2007 IPCC report.

Congress indeed has an important role in oversight of federally funded research, especially that which contributes to public policy. That role properly includes attention to both priorities and productivity in such research, but as to quality, the best guide for the Congress is the fate of federally funded research in the peer-reviewed literature and in the assessments of that literature by scientific bodies. As to the mechanisms for distilling from the available scientific knowledge the insights needed for the Congress to discharge its policy-making responsibilities, we believe that the tried and true approaches of hearings, meetings with individual experts in the field, and studies commissioned from the Government Accountability Office, the Congressional Research Service, and relevant Executive Branch agencies remain superior to the approach taken in your recent round of letters to climate scientists.

My colleagues and I would be pleased to discuss these matters with you and your staff should you so desire. Please contact Joanne Carney, director of the AAAS Center for Science, Technology and Congress (202 326 6798 or jcarney@aaas.org) if you have questions or would like additional information.

Sincerely,



Alan I. Leshner

cc: The Honorable John Dingell, Ranking Minority Member, Committee on Energy and Commerce
The Honorable Ed Whitfield, Chair, Subcommittee on Oversight and Investigations
The Honorable Bart Stupak, Ranking Minority Member, Subcommittee on Oversight & Investigations