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Testimony before the
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Senate Foreign Relations Committee

by

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Mr. Chairman, members of the Subcommittee, I'm delighted to be here and have the opportunity to discuss the importance of open international scientific exchange. I represent the largest general scientific society in the world with over 130,000 members and 272 affiliated societies. Our members come from the entire range of science and engineering disciplines and many nations throughout the world.

Mr. Chairman, in the 21st Century, the science and technology enterprise is truly global in character. Modern information and communication technologies, as well as the ease of international travel, have transformed what once were individual national scientific communities into a world community. Collaboration across national boundaries is the norm, no longer the exception, and virtually every country has some scale of science it conducts, as everyone has come to understand the centrality of science and technology to every facet of modern life. Those peoples without access to science and technology are doomed to be disadvantaged long into the future.

We also have learned that in the 21st century context, it works against everyone's interest to isolate any individual national scientific community. We of course recognize the primary need to protect individual and national security, but there is no credible reason to limit international collaboration in non-classified research.

In a 1999 resolution, the AAAS Board of Directors emphasized that progress in science and technology is greatly enhanced by the unfettered exchange of information, especially freedom of movement across countries and the right to travel. They argued that such progress actually promotes national security, democratic decision-making and the general welfare by ensuring access for Americans to the latest discoveries, whatever their country of origin.

The AAAS Board argued that progress in science will be impeded if political criteria are used to obstruct open international discourse of scientist and engineers. They also emphasized that the universal language of science is often a means to bridge the political chasms that divide nations. Numerous examples have shown that international scientific communication can be a very successful venue through which to begin broader diplomatic discussions. Obvious examples include scientific collaborations ongoing during the “cold war” with the Soviet Union and during difficult times in our relations with Chile. Free and open scientific exchange among countries builds trust and mutual understanding.

We also have a human obligation to openly exchange scientific information and advances. The entire world is facing increasingly complex and often devastating problems of poverty, environmental degradation and human disease. Science and technology have a long and fruitful track record in helping to solve many of the most complex problems of humanity. AAAS believes that we in the American scientific community have an obligation to reach out to scientists and engineers around the globe and explore ways that science can improve the lives of people everywhere.

Most scientists in the U.S. also agree that scientific and educational exchanges with their colleagues abroad are beneficial to the development of science in our country. Take the case of Cuba that we are discussing today. In the area of environmental research, collaboration between the U.S. and Cuba has resulted in the discovery of new species, an increased awareness about the importance of Caribbean biodiversity, and joint publication and dissemination of other ecological and biological information. Additional potential benefits of increased collaboration with Cuban scientists include ways to prevent contamination of coastal waters and new approaches to sickle cell disease and vaccines for meningitis and hepatitis B. You likely will hear more from my colleagues on this panel today.

Representing the scientific community, the American Association for the Advancement of Science recently restated its mission: “To advance science and innovation throughout the world for the benefit of all people.” I believe our discussion today can help realize that noble goal.

APPENDIX

American Association for the Advancement of Science (AAAS)

Founded 150 years ago, AAAS is the world's largest federation of scientific and engineering societies, with nearly 275 affiliates. AAAS counts more than 130,000 individual scientists, engineers, science educators, policymakers, and interested citizens among its members, making it the largest general scientific organization in the world. Our mission is to advance science and innovation throughout the world for the benefit of all people. Our objectives in this mission are to foster communication among scientists, engineers and the public; enhance international cooperation in science and its applications; promote the responsible conduct and use of science and technology; foster education in science and technology for everyone; enhance the science and technology workforce and infrastructure; increase public understanding and appreciation of science and technology; and strengthen support for the science and technology enterprise.

The AAAS Science and Human Rights Program (SHR or the Program) was established in 1976 to give scientists a way to help their colleagues around the world whose human rights are threatened or violated. Mobilizing effective assistance to protect the human rights of scientists around the world remains central to its mission, as well as making the tools and knowledge of science available to benefit the field of human rights. AAAS Resources relating to scientific freedom and travel include:

“The Right to Travel: An Essential Freedom for Scientists and Academics,” by Alastair T. Iles, and Morton H. Sklar; February 1996.

“The Right to Travel: The Effect of Travel Restrictions on Scientific Collaboration Between American and Cuban Scientists,” Elisa Muñoz, July 1998.

Alan I. Leshner

Dr. Leshner became Chief Executive Officer of the American Association for the Advancement of Science and Publisher of *Science* Magazine in December 2001.

Prior to coming to AAAS, Dr. Leshner was Director of the National Institute on Drug Abuse (NIDA). One of the scientific institutes of the U.S. National Institutes of Health, NIDA supports over 85% of the world's research on the health aspects of drug abuse and addiction. Prior to becoming Director of NIDA, Dr. Leshner had been the Deputy Director and Acting Director of the National Institute of Mental Health. He went to NIMH from the National Science Foundation (NSF), where he held a variety of senior positions, focusing on basic research in the biological, behavioral and social sciences, and on science education.

Dr. Leshner went to NSF after 10 years at Bucknell University, where he was Professor of Psychology. While on the faculty at Bucknell, he also held long-term appointments at the Postgraduate Medical School in Budapest, Hungary; at the Wisconsin Regional Primate Research Center; and as a Fulbright Scholar at the Weizmann Institute of Science in Israel. Dr. Leshner's research has focused on the biological bases of behavior. He is the author of a major textbook on the relationship between hormones and behavior, and numerous book chapters and papers in professional journals. He also has published extensively in the areas of science and technology policy and education.

Dr. Leshner received his undergraduate degree in psychology from Franklin and Marshall College, and M.S. and Ph.D. degrees in physiological psychology from Rutgers University. He also holds honorary Doctor of Science degrees from Franklin and Marshall College and the Pavlov Medical University in St. Petersburg, Russia. He has been elected a fellow of many professional societies, is a member of the Institute of Medicine of the National Academy of Sciences, and has received numerous awards from both professional and lay groups.