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Dear Ms. Shaheed,

The right to enjoy the benefits of scientific progress and its applications lies at the heart of the mission of the American Association for the Advancement of Science (AAAS). As such, we welcome the opportunity to provide our input into the report you are preparing on this right for the United Nations Human Rights Council.

Founded in 1848, AAAS is the world's largest multidisciplinary scientific association, with both individual members and more than 260 affiliated associations. In addition to publishing *Science*, the leading peer-reviewed scientific journal, AAAS supports a range of initiatives and programs, including the Scientific Responsibility, Human Rights and Law Program, which since 2008 has developed a project addressing the right to benefit from scientific progress.

From 2008 to 2009, AAAS participated in the UNESCO process aimed at defining the right to benefit from scientific progress. Following the conclusion of that process, the AAAS Board of Directors adopted a Statement on the right to enjoy the benefits of scientific progress and its applications (see Appendix). In that Statement, the Board recognized the centrality of this right to the mission of AAAS, and supported efforts to engage the scientific community in defining the right and bring our findings to the United Nations process.

We have followed-up on the Board Statement with several activities, including: hosting two panel discussions concerning innovative mechanisms for ensuring access to the benefits of science, with representation from civil society, academia and the private sector; compiling and analyzing government periodic reports on the implementation of this right; initiating a hearing of the Inter-American Commission on Human Rights focused on this right, and engaging a dozen professional scientific societies, involving over 200 scientists, in focus groups to help clarify the meaning of this right and barriers to its implementation.

Based on these activities, we offer a preliminary assessment of the fundamental characteristics of the right, and identify further issues requiring consideration by the various stakeholders involved in the UN process.

1. Fundamental characteristics of the right

Focus on the rights of marginalized and vulnerable populations: The right of everyone to enjoy the benefits of scientific progress is an individual and a collective right. The realization of this right requires states to give particular focus to the needs of marginalized and vulnerable populations, including with regard to access to basic scientific and technological advances; research funding targeted to the specific needs of marginalized and vulnerable communities; and protection of the rights of human research subjects.

Participation in decision-making: Dissemination of scientific information is essential to facilitating public participation in decision-making about science and to fostering further research and development. Underpinning both goals is the obligation on states to institute effective science curricula at all levels of the education system; to disseminate publicly scientific information; and to develop mechanisms for engaging the public in decision-making about funding and research priorities, as well as science policy, including as it relates to emerging areas of research and new technological applications.

International cooperation: Strengthening international cooperation and assistance in science and technology is vital to the realization of the right to enjoy the benefits of scientific progress. International cooperation may take the form of direct aid, financial and/or material, as well as the creation of international collaborative models of research, development and capacity-building, with an emphasis on mechanisms aimed to benefit developing countries and their populations.

Protection from science and technology that violate human rights: The right to enjoy the benefits of scientific progress includes a corresponding obligation to guard against the use and/or misuse of science and technology in violation of human rights, including in the conduct of research, the products of scientific research, and the application of scientific and technological advances.

Scientific freedom: Scientific freedom is vital to the development of a robust and productive scientific community. Scientists require freedom of thought, to hold opinions without interference, and to seek, receive, and impart information and ideas of all kinds; and to form and join professional societies and associations. In addition, scientists need the freedom to collaborate with others both within their own country and internationally, including the freedom to leave and re-enter their own country and to freely exchange information, research ideas and results.

2. Issues for consideration

Scientific responsibility: Scientific freedom is not absolute. Scientists are expected to conduct their research responsibly in accordance with ethical standards, standards which in practice are often developed and maintained by discipline-specific professional organizations and supported by legal and institutional mechanisms. These ethical standards and legal frameworks are rarely based explicitly on human rights

standards. For the purposes of conceptualizing the right to benefit from scientific progress, it is vital to determine the meaning of scientific responsibility from a human rights perspective.

Right to benefit from science and intellectual property: Clarification of the relationship between intellectual property protections and human rights is evolving. However, further consideration is still required to develop creative and effective mechanisms for protecting both the moral and material interests of creators as well as the human rights of individuals and communities. Conceptualization of the right to enjoy the benefits of scientific progress presents a vital opportunity to contribute further to these considerations.

Right to benefit from science and national security: Export control regulations, travel restrictions, limitations on foreign contacts and information sharing, trade embargoes and sanctions, and similar barriers to international cooperation and research collaboration limit the freedom of scientists to conduct their work. The legitimate imposition and scope of such restrictions requires examination.

Third party actors and obligations: Determining practical measures for applying the right to enjoy the benefits of scientific progress, and determining how to do so in a way consistent with the general principles of human rights, poses unique challenges given the significant and increasing role of the private sector in research and development. In countries where the government's role in identifying priority research areas, undertaking research, and disseminating the products of research has been reduced, the private sector's influence has increased.

We are very pleased that the United Nations remains committed to defining this right and determining practical measures for its implementation, and encourage you to ensure that the perspectives of scientists are fully and effectively represented in this process. Please do not hesitate to contact me with any questions.

Sincerely,



Alan I. Leshner



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AAAS Statement

On the human right to the benefits of scientific progress

The human right to enjoy the benefits of scientific progress and its applications was first internationally recognized in the 1948 Universal Declaration of Human Rights. Basic tenets of the right include: ensuring equitable access to the benefits of scientific progress, with particular focus on vulnerable and marginalized groups; investing in R&D and creating incentives for innovation to address forms of suffering experienced by these groups; ensuring the freedom of scientists to engage in scientific inquiry while also conducting their work responsibly; and fostering international cooperation in science.

An international process is currently underway that will take into account different perspectives and diverse interests in defining with greater clarity the meaning of the right and in determining how best to implement the right in practice. Recognizing that this right lies at the heart of the AAAS mission and the social responsibilities of scientists, AAAS will pursue opportunities to collaborate with the global scientific community so that the voice, interests and concerns of scientists can be brought to this process.

Building on AAAS's strength as the world's largest multi-disciplinary scientific society and its unique contributions in bringing science and scientists to human rights work, AAAS will:

- bring to the attention of its affiliates and members the importance of engaging in discussions concerning the human right to benefit from scientific progress and its applications;
- engage the domestic and global scientific communities in defining the content of the right and determining its application to a diverse range of scientific disciplines and issues of concern to the scientific community;
- coordinate the efforts of the AAAS Science and Human Rights Coalition to conceptualize the right and pursue strategies for integrating this right into the work of Coalition members; and
- building on these activities, engage the US government and other key actors in dialogue on the right to benefit from science and its implications for relevant policies and programs.

[Adopted by the AAAS Board of Directors, 16 April 2010.]