AAAS adopts scientific freedom and responsibility statement

Related online resources offer guidance, support, and information to scientists

By Michaela Jarvis

The AAAS Board of Directors has adopted a definitive statement on scientific freedom and responsibility that, together with a new Web portal of resources, provides an authoritative basis and unique reference point for scientists’ right to do research in order to advance knowledge—as well as their responsibility to conduct their research ethically and for the benefit of society.

The broad, overarching AAAS Statement on Scientific Freedom and Responsibility, which was officially adopted on 12 October, reflects the AAAS mission to promote scientific freedom—and that freedom’s inseparable counterpart, scientific responsibility.

The contexts in which the statement and website could be helpful to the scientific community are “multiple, from the teaching of STEM, considering areas of research to pursue or fund, designing or reviewing a research protocol, communicating about research, to acting as a whistleblower,” said Jessica Wyndham, interim program director of the AAAS Scientific Responsibility, Human Rights and Law Program.

In cases where government or members of the public seek to thwart research inappropriately, the statement “expresses the principles scientists can rely upon to defend their work,” Wyndham said, citing an example of a developmental biologist, L. Dennis Smith, who defended research using fetal tissue to study neurodegenerative diseases—such as Alzheimer’s, Parkinson’s, AIDS dementia, and multiple sclerosis—by emphasizing the right of scientists to do the research in a responsible way and in a climate of openness.

AAAS began a long campaign to protect the rights and uphold the responsibilities of the scientific community in the 1970s, overseeing a report that detailed instances in which the role of science came into question. Among the situations presented were the use of defoliants by the U.S. military in Vietnam, the safety of nuclear power plants, and the misuse of psychology as a tool for torture. Partly in response to the report, AAAS changed its constitution in 1977 to include “fostering scientific freedom and responsibility.”

Since then, AAAS has pioneered methods for documenting and analyzing human rights violations, such as using genetic screening to help reunite children with their families after they were taken from their parents during Argentina’s “Dirty War,” and the use of high-resolution satellite imagery to detect human rights abuses. AAAS has also conducted programs on how to implement policies for responding to misconduct in research, on best practices for conducting responsible research, and on the responsibilities scientists have to the societies that often fund their work.

The new website will be updated according to the needs of members of the scientific community. It offers articles from Science and other publications, links to related websites, and information on relevant AAAS programs—and a downloadable poster for scientists to display at work.

“Scientists and engineers can put the statement poster up in their labs or other work spaces as a signal to everyone who joins the research team: Look, around here, we work under conditions of freedom, and we do all our research with integrity,” said Melissa Anderson, professor of higher education at the University of Minnesota and chair of the AAAS Committee on Scientific Freedom and Responsibility, which led the effort to develop the statement and website.

Also included on the website is an acknowledgment of the competing pressures that scientists and engineers confront, explaining that the website contains a wide range of perspectives intended to be “timely, informative, and useful as a guide for policy and behavior and as a resource for inquiry and instruction.”

“The website provides resources,” said Anderson, “to support discussions about how freedom and responsibility are to be maintained amid the complexities and ambiguities of everyday science.”


AAAS Statement on Scientific Freedom and Responsibility

Scientific freedom and scientific responsibility are essential to the advancement of human knowledge for the benefit of all. Scientific freedom is the freedom to engage in scientific inquiry, pursue and apply knowledge, and communicate openly. This freedom is inextricably linked to and must be exercised in accordance with scientific responsibility. Scientific responsibility is the duty to conduct and apply science with integrity, in the interest of humanity, in a spirit of stewardship for the environment, and with respect for human rights.
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