the
INTERACADEMY PANEL
on international issues
iap
a global network of science academies

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IAP STATEMENT ON BIOSECURITY

Knowledge without conscience
is simply the ruin of the soul.
F. Rabelais, 1532[1]

In recent decades scientific research has created new and unexpected knowledge and technologies that offer unprecedented opportunities to improve human and animal health and environmental conditions. But some science and technology can be used for destructive purposes as well as for constructive purposes. Scientists have a special responsibility when it comes to problems of "dual use" and the misuse of science and technology.

The 1972 Biological and Toxin Weapons Convention reinforced the international norm prohibiting biological weapons, stating in its provisions that "*each state party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain: microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic or other peaceful purposes.*" Nevertheless, the threat from biological weapons is again a live issue. This statement presents principles to guide individual scientists and local scientific communities that may wish to define a code of conduct for their own use.

These principles represent fundamental issues that should be taken into account when formulating codes of conduct. They are not intended to be a comprehensive list of considerations.

1. **Awareness**. Scientists have an obligation to do no harm. They should always take into consideration the reasonably foreseeable consequences of their own activities. They should therefore:
   - always bear in mind the potential consequences – possibly harmful – of their research and recognize that individual good conscience does not justify ignoring the possible misuse of their scientific endeavour;
   - refuse to undertake research that has only harmful consequences for humankind.
2. **Safety and Security**. Scientists working with agents such as pathogenic organisms or dangerous toxins have a responsibility to use good, safe and secure laboratory procedures, whether codified by law or common practice.[2]

[1] "Science sans conscience n'est que ruine de l'âme."

[2] Such as the WHO Laboratory Biosafety Manual, Second Edition (Revised).

3. **Education and Information**. Scientists should be aware of, disseminate information about and teach national and international laws and regulations, as well as policies and principles aimed at preventing the misuse of biological research.
4. **Accountability**. Scientists who become aware of activities that violate the Biological and Toxin Weapons Convention or international customary law should raise their concerns with appropriate people, authorities and agencies.
5. **Oversight**. Scientists with responsibility for oversight of research or for evaluation of projects or publications should promote adherence to these principles by those under their control, supervision or evaluation and act as role models in this regard.

These principles have been endorsed by the following national academies of science, working through the InterAcademy Panel:

- Albanian Academy of Sciences
- National Academy of Exact, Physical and Natural Sciences, Argentina
- The National Academy of Sciences of Armenia
- Australian Academy of Science
- Austrian Academy of Sciences
- Bangladesh Academy of Sciences
- National Academy of Sciences of Belarus
- The Royal Academies for Science and the Arts of Belgium
- Academy of Sciences and Arts of Bosnia and Herzegovina
- Brazilian Academy of Sciences
- Bulgarian Academy of Sciences
- Cameroon Academy of Sciences
- The Royal Society of Canada
- Chinese Academy of Sciences
- Academia Sinica, China Taiwan
- Colombian Academy of Exact, Physical and Natural Sciences
- Croatian Academy of Arts and Sciences
- Cuban Academy of Sciences
- Academy of Sciences of the Czech Republic
- Royal Danish Academy of Sciences and Letters
- Academy of Scientific Research and Technology, Egypt
- Estonian Academy of Sciences
- The Delegation of the Finnish Academies of Science and Letters
- Académie des Sciences, France
- Union of German Academies of Sciences and Humanities
- Academy of Athens, Greece
- Hungarian Academy of Sciences
- Indian National Science Academy
- Indonesian Academy of Sciences
- Royal Irish Academy
- Israel Academy of Sciences and Humanities
- Accademia Nazionale dei Lincei, Italy
- Science Council of Japan
- African Academy of Sciences
- Kenya National Academy of Sciences
- The National Academy of Sciences, The Republic of Korea
- National Academy of Sciences of the Kyrgyz Republic
- Latvian Academy of Sciences
- Lithuanian Academy of Sciences
- Macedonian Academy of Sciences and Arts
- Akademi Sains Malaysia
- Academia Mexicana de Ciencias
- Academy of the Kingdom of Morocco
- The Royal Netherlands Academy of Arts and Sciences
- Academy Council of the Royal Society of New Zealand
- Nigerian Academy of Sciences
- Pakistan Academy of Sciences
- Palestine Academy for Science and Technology
- Academia Nacional de Ciencias del Peru
- National Academy of Science and Technology, Philippines
- Polska Akademia Nauk, Poland
- Russian Academy of Sciences
- Académie des Sciences et Techniques du Sénégal
- Serbian Academy of Sciences and Arts
- Singapore National Academy of Sciences
- Slovak Academy of Sciences
- Slovenian Academy of Sciences and Arts
- Academy of Science of South Africa
- Royal Academy of Exact, Physical and Natural Sciences of Spain
- Royal Swedish Academy of Sciences
- Council of the Swiss Scientific Academies
- Turkish Academy of Sciences
- The Uganda National Academy of Sciences
- The Royal Society, UK
- US National Academy of Sciences
- Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela
- Zimbabwe Academy of Sciences
- TWAS, the Academy of Sciences for the Developing World