MEETING OF THE STATES PARTIES TO THE CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION AND STOCKPILING OF BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN WEAPONS AND ON THEIR DESTRUCTION

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Consideration of oversight, education, awareness raising, and adoption and/or development of codes of conduct with the aim of preventing misuse in the context of advances in bio-science and bio-technology research with the potential of use for purposes prohibited by the Convention

DEVELOPMENTS IN CODES OF CONDUCT SINCE 2005

Submitted by the Implementation Support Unit

Summary

This background document surveys developments in codes of conduct relevant to the Convention since 2005, when the topic was last considered by States Parties. It updates information contained in the background documents prepared for the 2005 meetings of the Convention, and should be read in conjunction with those documents (BWC/MSP/2005/MX/INF.1, BWC/MSP/2005/MX/INF.2, BWC/MSP/2005/MX/INF.3 and BWC/MSP/2005/MX/INF.4).

I. International intergovernmental organizations

Organisation for Economic Cooperation and Development (OECD)

1. In September 2004, the International Futures Programme (IFP) of the OECD brought together 55 selected participants from industry, academia, public research organizations, scientific societies, the science publishing field and government to discuss promoting responsible stewardship in the biosciences and avoiding the potential abuse of research and resources. Following this meeting, the IFP developed a follow-up programme on biosecurity which has led to the creation in mid-2005 of a website dedicated to codes relating to biosecurity: http://www.biosecuritycodes.org.

2. The site is "dedicated to providing an active resource of global information on oversight mechanisms – particularly codes-of-conduct for the biosciences research community – to help advance these efforts and promote responsible oversight of the biosciences". The site includes information on the various stakeholders in the field of biosecurity worldwide and their activities; biosecurity-related events and projects; information on and examples of codes; a glossary of relevant terms; information on relevant legislation in various countries; and background materials on biosecurity and biosciences.

UNESCO

3. The UNESCO Division of Ethics of Science and Technology has continued to work on the question of ethical codes for scientists. In October 2005, the 33rd session of UNESCO's General Conference requested the Director-General of UNESCO "to pursue reflection on the question of science ethics" in cooperation with the International Council for Science (ICSU) and the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) and to submit a report to UNESCO's Executive Board at its 175th Session (September-October 2006)[1].

4. In response to this request, UNESCO organized a series of consultation meetings with scientists, philosophers, policy-makers, relevant national, regional and international organizations and stakeholders. Meetings were held in Tokyo (April 2006), New Delhi (April 2006), Geneva (May 2006), Bangkok (May 2006), Belo Horizonte (May 2006), and Seoul (May 2006). Further consultations were to be held in Africa and the Middle East, but have not yet taken place. UNESCO also collected and undertook an analysis of existing codes of conduct in various scientific and professional areas and in different regions and member states. An "Interim analysis of codes of conduct and codes of ethics"[2] was published in September 2006.

5. COMEST held an extraordinary meeting on 27-28 June 2006, at which it recommended that further international reflections and consultations should be carried out in order to identify a general ethical framework to guide scientific activity that will cover other stakeholders beyond the focus on scientists; that UNESCO, with the advice of COMEST, should work out such a general ethical framework; that the subsequent elaboration and/or implementation of specific

[1] UNESCO General Conference resolution 33C/R.39(4), available at http://unesdoc.unesco.org/images/0014/001428/142825E.pdf

[2] http://unesdoc.unesco.org/images/0014/001473/147335E.pdf

codes of conduct for scientists should rely on governments and the scientific community; and that a wide participatory process, involving all stakeholders, was therefore required.

6. The Director-General's report[3], which described the above activities in detail, was duly submitted to the Executive Board. The report noted that the consultation meetings had revealed, *inter alia*, that:

(i) codes of conduct, ethics education and training programmes can help inform individual scientists about their ethical and legal responsibilities, and thus can help promote a culture of responsibility and raise awareness;

(ii) internationally harmonized rules would be of value in situations where individual scientists were being pressured to undertake work without regard for international standards.;

(iii) governments and scientists need to work together to develop and apply proposed rules;

(iv) efforts to achieve a harmonized international approach to science ethics and scientists' responsibility would have to overcome diverging perspectives. International organizations can help bridge these differences by providing an international discussion forum;

(v) cultural differences among countries must be taken into account in any efforts to develop and implement international ethical standards for science.

7. The Executive Board "took note" of the COMEST recommendations, but took no decision on specific action beyond "encouraging" COMEST to continue its consultations with stakeholders[4].

II. Professional organizations, associations, bodies and institutions

InterAcademy Panel on International Issues (IAP)

8. IAP is an international network of academies of science. In December 2005, IAP issued a *Statement on Biosecurity*[5], which was endorsed by 68 national academies of science worldwide. The statement recognized that "scientists have a special responsibility when it comes to problems of 'dual use' and the misuse of science and technology", and set out five principles intended to "guide individual scientists and local scientific communities that may wish to define a code of conduct for their own use". The five principles were awareness; safety and security; education and information; accountability; and oversight.

International Union of Microbiological Societies (IUMS)

[3] UNESCO Executive Board document 175EX/14, http://unesdoc.unesco.org/images/0014/001467/146733e.pdf

[4] UNESCO Executive Board, 175EX/Decision 13, http://unesdoc.unesco.org/images/0014/001481/148150e.pdf

[5] http://royalsociety.org/displaypagedoc.asp?id=17463

9. The IUMS, as one of the 29 scientific unions of the International Council of Science (ICSU), has 113 member societies and 14 associate members representing over 100 countries. The Union promotes research and the open exchange of scientific information for advancement of the health and welfare of humankind and the environment. The IUMS strongly discourages any uses of knowledge and resources to the contrary. More specifically, the IUMS promotes ethical conduct of research and training in the areas of biosecurity and biosafety, with the aim of preventing use of microorganisms as biological weapons in order to protect the public's health and to promote world peace.

10. The IUMS presented to its General Assembly on 27 July 2005 the IUMS Code of Ethics against Misuse of Scientific Knowledge, Research and Resources[6], which was revised on 30 September 2005 and finally approved on 28 April 2006. The IUMS seeks that all its member societies adopt or develop a code of ethics to prevent misuse of scientific knowledge and resources.

Korean Society for Molecular and Cellular Biology (Republic of Korea)

11. The Korean Society for Molecular and Cellular Biology published its Code of Ethics[7] in October 2005. The code refers to understanding the public interest, protecting human life and environment, and improving human health and wellbeing, but does not specifically mention biosecurity, prevention of misuse, or biological weapons concerns.

Institute of Medicine and National Research Council of the National Academies (USA)

12. In 2006, the Institute of Medicine and National Research Council of the National Academies published recommendations on this issue. Although the Institute has not formally adopted a code of conduct, it has launched a report titled "Globalization, Biosecurity, and the Future of the Life Sciences"[8]. The report examines the growing risk coming from biomedical advances and the globalization of scientific and technical expertise, and calls for coordinated global efforts to anticipate, identify and mitigate these dangers. In particular, the report recommends the development of "explicit national and international codes of ethics and conduct for life scientists".

The Royal Society (United Kingdom), International Council for Science (ICSU) and InterAcademy Panel on International Issues (IAP)

13. The Royal Society, ICSU and IAP jointly held a workshop at the Royal Society in London from 4-6 September 2006 to consider new scientific and technological developments relevant to the operation of the BWC. Leading international scientific and policy experts from 23 countries met to discuss scientific and technological developments most relevant to the operation of the BWC. The discussion covered the developments and advances in several fields, including synthetic biology; post genomic technologies; immunological research; drug discovery

[6] http://www.iums.org/about/about_us-Codeethics.html

[7] http://ksmb.or.kr/home/eng/Charter%20of%20Ethics%20for%20Life%20Science%20Researchers.pdf

[8] *Globalization, Biosecurity, and the Future of the Life Sciences*, Institute of Medicine and National Research Council of the National Academies, The National Academies Press, Washington, D.C., 2006

and delivery; agricultural and environmental biotechnology; and diagnosis and surveillance of infectious diseases.

14. During the event, "some participants felt that simply reaffirming codes of conduct does not provide any further illumination over important details of their scope and meaning. There still need to be more efforts to engage with scientists directly to educate them about dual use issues and the value of codes of conduct, and encourage them to input into the formulating of these codes."[9]

Royal Netherlands Academy of Arts and Sciences (KNAW)

15. Following the 2005 BWC meetings, the Netherlands Ministry of Education, Culture and Science gave to the Biosecurity Working Group of the Royal Netherlands Academy of Arts and Sciences (KNAW) the task to prepare a code of conduct. In the second half of 2007, the Biosecurity Working Group published its *Code of Conduct for Biosecurity in the Netherlands*[10]. The code covers issues such as: raising awareness; research and publication policy; accountability and oversight; internal and external communication; accessibility; and shipment and transport.

III. Publications and websites

The Arms Control Association

16. In September 2006, the Arms Control Association published "Crucial Guidance: A Code of Conduct for Biodefense Scientists"[11], by Mr. Roger Roffey, Mr. John Hart and Ms. Frida Kuhlau, in *Arms Control Today*. The authors concluded that "scientists need codes of conduct for guidance and to help them clarify their thinking on difficult ethical questions. Countries have to prove to their parliaments and general public that a biodefense program is purely defensive and that the involved scientists are working in line with openly agreed codes of conduct. Independent national oversight committees are therefore needed to review ongoing biodefense research and development activities. In addition, the international community should design some kind of independent international authority to counsel scientists concerned about how their research or results might be used."

University of Exeter

17. In 2007, Mr. Brian Rappert published "Codes of conduct and biological weapons: an in-process assessment"[12]. The article surveys recent developments, specifically with respect to "universal" and "scientific society" types of codes; proposes criteria for assessing these initiatives; evaluates activities undertaken to date on the basis of these criteria; and proposes key questions for the future.

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[9] http://royalsociety.org/displaypagedoc.asp?id=22789

[10] http://www.knaw.nl/cfdata/publicaties/detail.cfm?boeken__ordernr=20071092

[11] http://www.armscontrol.org/act/2006_09/BWCconduct.asp

[12] Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science, Volume 5, Number 2, 2007

MIT Center for International Studies

18. Ms. Jeanne Guillemin from the MIT Center for International Studies published in April 2007 an article titled "Can Scientific Codes of Conduct Deter Bioweapons?"[13] Although supporting codes of conduct, the author underlines the importance of the BWC as a legal restraint against biological weapons.

University of Bradford

19. In March 2008, Mr. Malcom Dando published an article titled "The Dutch experiment with a biosecurity code of conduct"[14], which examined the implementation of the code of conduct developed by the Biosecurity Working Group of the Royal Netherlands Academy of Arts and Sciences in 2007 (see above). According to the author, the key element of the code was the attention paid to raising awareness. Mr. Dando concluded that only a widely informed and involved scientific community would contribute effectively to preventing the misuse of the modern life sciences.

Codes of conduct website

http://www.projects.ex.ac.uk/codesofconduct/Chronology/index.htm

20. This website provides resources and information relating to codes. It includes a chronology of past discussions about codes for bioscientists, notice of relevant events, publications and reference information, and links to key organizations. The website was established as part of a research project undertaken by Mr. Brian Rappert (University of Exeter) and Mr. Malcolm Dando (University of Bradford), funded by the UK Economic and Social Research Council New Security Challenges Programme titled "Coding Research: Biological Weapons, Security & the Silencing of Science".

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[13] http://www.isn.ethz.ch/pubs/ph/details.cfm?lng=en&id=32097

[14] http://www.thebulletin.org/web-edition/columnists/malcolm-dando/the-dutch-experiment-with-a-biosecurity-code-of-conduct