

Royal Society work towards 2005 Annual Meeting of the Biological Weapons Convention

Paper to be given at XVI Amaldi Conference on global security, 19 November 2004 presented by Nick Green

Summary

This paper summarises the Royal Society work on reducing the threat of biological weapons and how this has contributed to the UK Government's preparations for various Biological Weapons Convention meetings, particularly the 2005 Annual Meeting. The Royal Society policy work aims to provide independent, authoritative advice and this paper outlines how this area of work has developed from 1994 to 2004. This work has taken many different forms including major policy studies, policy statements, responses to Government documents, attending and arranging both formal and informal meetings, and publishing editorials.

Introduction

The Royal Society has a long standing interest in reducing the threat from biological weapons. This paper outlines the Society's activities in this area, and how they have contributed to the UK Government's preparations for the 2005 Annual Meeting of the Biological Weapons Convention (BWC).

At the reconvened Fifth BWC Review Conference in November 2002, it was agreed¹ to hold three annual meetings of the States Parties of one week duration each year commencing in 2003 until the Sixth Review Conference, to be held not later than the end of 2006, to discuss, and promote common understanding and effective action on:

- 1 the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;*
- 2 national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;*
- 3 enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;*
- 4 strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals, and plants;*
- 5 the content, promulgation, and adoption of codes of conduct for scientists.*

The fifth topic of codes of conduct will be discussed at the 2005 Annual Meeting, which the UK Government agreed to chair.

The Royal Society's previous work relating to biological weapons

The Society established its standing committee on Scientific Aspects of International Security (SAIS) in 1988, with the remit to consider the scientific and technical aspects of international security and arms control and

in particular: to provide briefings for Fellows, maintain contact with similar groups of scientists overseas, undertake studies and prepare advice and report to Royal Society Council.

SAIS initiated two studies relating to biological weapons (BW) that led to reports being published in 1994² and 2000³. The purpose of the 1994 study was to examine the scientific aspects of control of BW with a view to making suggestions as to how existing measures might be improved. In May 1999, the Society hosted a meeting to discuss the control of biological weapons with the US National Academy of Sciences and the French Academie des Sciences. Following the meeting, the Society decided to prepare a report that would examine the topic from a UK perspective and would inform policy makers and the public about the measures required to counter the threat posed by biological weapons to civilian populations. The final report was published in July 2000 and its main conclusion was that the threat from biological weapons must be taken seriously, but that it was equally important not to cause undue alarm by exaggerating it. Both reports were produced by working groups chaired by Professor Harry Smith FRS. In addition to the biological weapons studies, SAIS has initiated major studies on the management of separated plutonium⁴, the health hazards of depleted uranium munitions⁵ and detection and decontamination of chemical and biological agents⁶.

In November 2001, Sir Brian Heap FRS, then Foreign Secretary and Vice President of the Society, published an editorial in *Science* entitled '*Scientists against biological weapons*'⁷. Written ahead of the Fifth BWC Review Conference, the editorial stressed the need for scientists to support policy makers in negotiations to secure an effective international instrument banning the development, production, and use of biological weapons. It also outlined the part scientists can play, through the development of tools for diagnosis and detection. In addition to dialogue between scientists and policy makers, the importance of engaging with the public was highlighted.

Lord May of Oxford, President of the Royal Society, and Bruce Alberts, President of the US National Academy of Sciences, joined together to express their support for biological weapons controls in a joint editorial published in *Science*⁸ on 8 November 2002. The editorial was timed to coincide with the Reconvened Fifth BWC Review Conference, which took place in Geneva from 11 to 22 November 2002. The article stressed the important roles scientists have both collectively and individually.

Foreign and Commonwealth Office Green Paper

The UK Government published a Green paper entitled '*strengthening the Biological & Toxin Weapons Convention: countering the threat from biological weapons*'⁹ in April 2002. The Foreign & Commonwealth Office (FCO) was taking the lead for the UK Government. The objective of the Green Paper was to outline the nature of the threat posed to international security by BW, review the arms control efforts to which the UK has contributed over the last decades to combat this threat, and to describe some possible measures that the UK might pursue to strengthen the BWC and counter the threat from BW. The paper identified a number of possible measures for consideration, that the FCO welcomed comment on. These areas were:

- **investigations** into non-compliance with the Convention (*alleged use of BW, misuse of facilities and suspicious outbreaks of disease*).
- **assistance** in the event, or threat, of use of BW.

- **national criminal legislation** and extradition procedures: in those cases where they have not already done so, States Parties should pass national criminal legislation translating the prohibitions in the Convention into domestic law.
- **Scientific advisory panel:** in view of the dramatic pace of technical change in the life sciences as described here, an open ended body of government and non-government scientists should meet every one or two years to review the rate of change and assess their implications for the Convention and measures being taken to strengthen it.
- **revised Confidence Building Measures (CBMs):** existing CBMs should be revisited to see whether there is scope for improving and expanding their breadth and scope. Expanded CBMs might include more detailed voluntary exchanges on the level of information as well as voluntary visits to be agreed between participating States Parties to facilities notified under the existing or revised CBMs, or indeed to any facilities that it was agreed could be subject to visits, reciprocal or otherwise.
- **a new Convention on physical protection of dangerous pathogens:** consideration should be given to the feasibility and desirability of establishing a new international agreement that would set standards for effective physical protection of dangerous pathogens held or worked upon in academic, government, industrial or research laboratories.
- **a new Convention on criminalisation of CBW:** there are already proposals, developed initially in the academic community, for a Convention that introduces criminal responsibility for any individual indicted for violating the prohibitions in the Biological and Toxin Weapons Convention or the Chemical Weapons Convention.
- **increased efforts on disease surveillance,** detection and diagnosis and countering infectious disease generally: this would be done through existing national and/or international channels.
- **codes of conduct:** such codes would be developed by academic and professional bodies to lay out standards for work relevant to the prohibitions of the Convention.
- **promotion of universal membership** of the BWC.
- **Withdrawal of reservations to the 1925 Geneva Protocol:** States Parties to the Convention should be encouraged to withdraw any existing reservations they made on ratification or accession to the Convention regarding circumstances under which they reserved the right to use BW and CW.

The Society responded to the Green Paper¹⁰ in September 2002 concentrating on two of the possible measures: a scientific advisory panel and codes of conduct for professional bodies. It was noted that successful scientific advisory panels have in common a number of key features that should be taken into account in the creation of a body to improve the efficacy of the BWC. These include highly respected memberships directed by bodies set up as the result of international political agreement. Their objectives must be clearly defined and widely accepted as beneficial to human welfare. It also commented that addressing issues of scientific responsibility and ethics in research was an important but complex undertaking, which can only be tackled in a number of complementary ways. One is the agreement of a universal set of standards for research that can be incorporated into internationally-supported treaties; another is a concerted effort to increase awareness of international treaties and implicit codes of ethical conduct amongst researchers.

Preparations for the 2005 BWC Annual Meeting

Following the decision to hold three Annual Meetings at the reconvened Fifth Review Conference in November 2002, the Society met with FCO and representatives from Ministry of Defence (MoD) and the

Department for Trade and Industry (dti) in January 2003 to discuss the next steps regarding their preparations for the BWC Annual Meetings.

FCO arranged round table meetings in July 2003, December 2003 and June 2004 to bring together Government policy makers and representatives of the scientific community to discuss issues relating to codes of conduct, which the Society attended and made active contributions to.

A number of UK based organisations have undertaken work in this area, who have met informally to discuss progress. These discussions have been fed into FCO, to assist in their preparations. The organisations involved include:

- British Medical Association
- Department of Peace Studies, University of Bradford
- University of Exeter
- SPRU, University of Sussex
- Wellcome Trust
- Association of British Pharmaceutical Industries

A good representation of the discussion of these groups is given in Dr Brian Rapper's Bradford Briefing Paper '*Towards a life science code: possibilities and pitfalls in countering the threats from bioweapons*'¹¹.

Individual and collective roles for scientists

The Society presented a paper for the United Nations Foundation, Nuclear Threat Initiative and National Academies peer review round table on biological threats to security in April 2004. The paper was entitled '*the individual and collective roles scientists can play in strengthening international treaties*'¹². The major ideas from the papers and discussion at the UN roundtable meeting were used to inform the United Nations Secretary General's High Level Panel on Threats, Challenges and Change. The paper built on the Society's previous work (including the January 2004 response to the House of Lords Science and Technology Committee inquiry into science and treaties¹³) and aimed to bring it to a wider audience.

The key points made in the paper were:

- It is essential to support international agreements, such as the Biological Weapons Convention, through the formation of international scientific advisory panels to keep up with the rapid pace of technological advance in the relevant sciences.
- The research community must exercise judgement in the publication of their work and raise awareness of the ethical and legal requirements related to their research.
- There should be a clear objective of moving towards an international consensus on adopting appropriate codes of good practice, particularly in relation to their role in combating the diversion of science advances into activities that pose a threat to global security and peace.
- The existing legal constraints relating specifically to biological weapons development both nationally and internationally should be examined and consideration given to what needs to be done to strengthen such laws and how they can be built in to an enforceable code of practice.

It has been reported that the FCO found it useful in the early stages of their planning for the 2005 BWC Annual Meeting. The paper also generated considerable media interest being covered in a number of UK newspapers including the Times, Guardian, Daily Telegraph and Financial Times. The Society also received a number of invitations to speak at related meetings on the subject of the paper.

Do no harm meeting

The Royal Society and Wellcome Trust jointly held a meeting entitled '*do no harm: reducing the potential for the misuse of life science research*' at the Royal Society on 7 October 2004. It was attended by approximately 70 people, including academic, Government and industry scientists, representatives of funding bodies and learned societies, scientific publishers, scientific journalists, Government policy makers and other interested individuals. The aim of the meeting was to identify what the issues were and how they might be addressed.

The Wellcome Trust published their position statement on bioterrorism and biomedical research in November 2003¹⁴ stating that the Trust was keen to work with other scientific organisations to identify how the scientific community could best address concerns regarding the potential misuse of life science research. Consequently, the Royal Society and Wellcome Trust agreed to bring together practising life scientists with policy makers, funders and other interested parties to discuss these issues.

The meeting addressed five main topics:

- Research funding;
- Communicating research results;
- Existing and possible future controls and oversight;
- Responsibilities of scientists and the utility of an ethical code of conduct for life scientists;
- Training and education of life scientists

A summary of the key points arising during the meeting will be sent to FCO once it is approved by the Council of the Royal Society and the Senior Managers Group of the Wellcome Trust, to help in their preparations for the 2005 Annual Meeting. The meeting report will also be available on the Royal Society website.

References

Please note that all Royal Society documents are available online at <http://www.royalsoc.ac.uk>.

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- 2 Royal Society (1994) *Scientific aspects of control of biological weapons*. Royal Society: London
- 3 Royal Society (2000) *Measures for controlling the threat from biological weapons*. Royal Society: London
- 4 Royal Society (1998) *Management of separated plutonium*. Royal Society: London

- 5 Royal Society (2001 & 2002) *Health hazards of depleted uranium munitions Part 1 (2001) & Part 2 (2002)* Policy documents 6/01 & 5/02. Royal Society: London
- 6 Royal Society (2004) *Making the UK safer: detecting and decontamination chemical and biological agents*. Policy document 6/04. Royal Society: London
- 7 Heap R B (2002) *Scientists against biological weapons*. *Science* **294**, 1417
- 8 Alberts B M & May R M (2002) *Scientist support for biological weapon controls*. *Science*, **298**, 1135
- 9 FCO (2002) *Strengthening the Biological and toxin weapons convention: countering the threat from biological weapons*. CM5484. The Stationary Office: London
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- 12 Royal Society (2004) *The individual and collective roles scientists can play in strengthening international treaties*. Policy document 5/04. Royal Society: London.
- 13 Royal Society (2004) *Response to House of Lord Science and Technology Committee inquiry into science and international agreements*. Policy document 3/04. Royal Society: London.
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