

Thursday 15th August 2013

## The third day: scientific and technical developments

The 2013 Meeting of Experts (MX) of the 1972 Biological and Toxin Weapons Convention (BWC/BTWC) continued on Wednesday. The scheduled work of the day had been on the topic of 'Review of developments in the field of science and technology related to the Convention, focusing on advances in technologies for surveillance, detection, diagnosis and mitigation of infectious diseases, and similar occurrences caused by toxins in humans, animals and plants', however, the first part of the morning session was used for the last cooperation and assistance sub-topic, as there was not enough time to finish this on Tuesday. Wednesday was also a full day with all sessions filling their time allocations with detailed proceedings. Wednesday saw the first presentations from 'Guests of the Meeting' (GoMs).

### **Completion of cooperation and assistance sub-topic**

Contributions were given by the International Federation of Biosafety Associations (GoM), UK, USA, Switzerland & Iraq, Kenya, Iran, Belgium and Germany. The IFBA presented its 5 year strategy, which included an interest in helping with biosafety and biosecurity in low resources situations. The joint Swiss-Iraqi presentation was about joint training efforts and expertise exchange; this project resulted from an Article X database request. A notable point of the presentation by Kenya was the importance of sensitizing incoming policymakers to the importance of BWC-related issues after the country's recent election and change of government. Iran suggested it was time for a fresh look at Article X. Belgium reminded the MX of its proposal to the Review Conference that Article X activities could be reporting in the system of Confidence-Building Measures (CBMs).

### **Fourth and fifth working sessions – scientific and technical (S&T) developments**

As with the cooperation and assistance topic, this topic was broken down into a variety of sub-topics. Before consideration of these, there was an opportunity for general comments on the topic which saw contributions from Iran (for the non-aligned), Brazil, Cuba, Pakistan, India and China. Iran noted the need for regular S&T review and indicated that measures such as codes should not include restrictions on peaceful purposes. Cuba spoke of a need for review processes to fit in with international arrangements. Pakistan highlighted a need for development of a coordinated approach and indicated that security issues should not be used as a pretext for withholding peaceful technologies.

The first and second sub-topics were taken together: 'New science and technology developments that have potential for uses contrary to the provisions of the Convention' and 'New science and technology developments that have potential benefits for the Convention, including those of special relevance to disease surveillance, diagnosis and mitigation'. Contributions came from: ISU, Ukraine, Australia, India, Sanofi (GoM), UK, Nanbiosys (GoM), Spain, South Africa, Hungary, Republic of Korea and USA.

The ISU introduced its background paper on S&T developments (INF.1). This document provided an example of how differences in backgrounds can lead to differences in the use and interpretation of language and this example was about how words used in a

technical paper might be read differently in a policy setting. Such differences are a particular challenge to report on – not to mention them would be to imply that they had no importance, which would be incorrect, but any reporting runs the risk of inadvertently being itself the focus of different interpretations; and to dwell on the subject would potentially compound the issue. The discussion illustrated that the BWC brings together people from a number of backgrounds – from the political to the legal to the technical – in which the same words bring with them different implications. Open and transparent discussion of these differences, as happened in the meeting room, is an effective way to clarify and resolve these issues.

Sanofi is a company using synthetic biology to manufacture an anti-malarial compound based on artemisinin. Nanobiosys is a company developing a new system of what is effectively a miniature laboratory on a chip that can be used to detect disease-causing microbes – ‘pathogens’. The representatives of each company described how new techniques bring particular advances such as reduced costs, larger manufacturing quantities and portability of equipment. Hungary also spoke of new advances in rapid diagnostic laboratory capabilities. Technological advances are only one part of the story and the Republic of Korea and Poland also spoke about how the technologies fit into their disease response arrangements. South Africa, introducing its Working Paper (WP.11) highlighted the value of prompt diagnostics as allows prompt treatment. The UK introduced its paper (WP.8) on vaccine development and the USA introduced its papers on S&T developments (WP.5) and on barriers to the emergency sharing of international public health and medical assistance (WP.6).

The third and fourth sub-topics were ‘Possible measures for strengthening national biological risk management, as appropriate, in research and development involving new science and technology developments of relevance to the Convention’ and ‘Voluntary codes of conduct and other measures to encourage responsible conduct by scientists, academia and industry’. These had been intended to dealt with separately but as the subject matter overlapped there ended up being no clear boundary between them. Indeed, as the interactions in the room developed there was some rescheduling of the order of speakers in order to allow debate to flow freely. Statements or interventions were given by WHO, Netherlands, Iran, USA, Simon Wain-Hobson (GoM), UK, France, Japan, Australia, Spain and Indonesia.

The WHO described the informal consultations on dual-use research of concern. France spoke about its Synthetic Biology Observatory, a tool for dialogue between sciences and society. Simon Wain-Hobson spoke about gain of function studies where pathogens are given extra infective properties during research. The Japanese and Indonesian contributions described recent activities in developing codes of conduct for scientists.

### **Side events**

There were two side events on Wednesday. A breakfast event was convened by the Netherlands and Indonesia on ‘Dealing with Dual Use Research of Concern’. Presentations were given by Herawati Sudoyo (Indonesian Academy of Sciences) and Koos van der Bruggen (Royal Netherlands Academy of Arts and Sciences). The event was chaired by Ambassador Henk Cor van der Kwast (Netherlands).

A lunchtime event on Convergence of biology and chemistry and opportunities for outreach and education was convened by the Organization for the Prohibition of Chemical Weapons and the ISU. Introductory comments were given by Jonathan Forman (OPCW) and presentations were given by Stefan Mogl (Speiz Laboratory, Switzerland) and Alejandra Suárez (Universidad Nacional de Rosario, Instituto de Quimica Rosario – CONICET, Argentina). The event was chaired by Piers Millett (ISU).

*This is the fourth report from the Meeting of Experts for the Biological and Toxin Weapons Convention which is being held from 12 to 16 August 2013 in Geneva. The reports are prepared by Richard Guthrie on behalf of the BioWeapons Prevention Project (BWPP) and are available via the BWPP website at <<http://www.bwpp.org>>.*

*The author can be contacted during the Meeting of Experts on +41 76 507 1026 or <[richard@cbw-events.org.uk](mailto:richard@cbw-events.org.uk)>.*