

## BTWC Meeting of Experts 2013

### *Recent Advances in Biosecurity Education*

Side Event, 13 August 2013

9.00 – 10.00 am

Remarks by **Ambassador Urs Schmid, Chairman**

Excellencies, Ladies and Gentlemen,

It is a great pleasure and privilege for me to chair this side-event on recent advances in biosecurity education. First and foremost, I would like to thank the Bradford University, the US National Academies of Science and the Landau Network – Centro Volta for organizing this timely event and, on their behalf, let me wholeheartedly welcome you.

Life sciences and corresponding technologies have been experiencing exponential growth over the past years and brought extraordinary advances in healthcare. At the same time, they are also accompanied by unprecedented threats to biosecurity as the same knowledge and technologies can be misused to cause harm. The dual-use nature of life science research therefore requires awareness-raising among life scientists of the potential dangers linked to their work and the promotion of a culture of responsibility. Biosecurity education constitutes a crucial element for achieving responsible conduct of research and that is an important measure for the implementation of the Biological Weapons Convention.

The crucial role life scientists play in the prevention of misuse of biotechnology and the important role of education and awareness-raising have been recognized in successive Review Conferences of the Biological Weapons Convention. The centrality of this issue was confirmed by the the 7<sup>th</sup> Review Conference which decided that “education and awareness-raising about risks and benefits of life sciences and biotechnology” under the Standing Agenda Item “review of developments in the field of science and technology related to the Convention” would be addressed at the meetings of the intersessional programme every year from 2012 – 2015.

This event therefore represents an excellent opportunity to take stock of developments, efforts and challenges in this area. It provides the opportunity to examine the impact these activities had or may have on the prevention of the misuse of biotechnology and to discuss possible additional steps to further promote a culture of responsibility amongst life scientists.

With these words of introduction, let me now turn to the panel without further ado. We are fortunate to have among us four experts who will share with us their views and experience in the field of biosecurity education. Thematically this side-event will cover two aspects: first biosecurity education in academia and, second, continued professional development and outreach in the area of biosecurity.

## **Section 1: Biosecurity Education in Academia**

Starting with the issue of biosecurity education in academia, our first speaker will be Ms Tatyana Novosiolova. A Wellcome Trust Doctoral Researcher at the Bradford Disarmament Research Centre, Ms. Novosiolova is particularly qualified to address such an issue. She is currently working on a project on the governance of biotechnology in Russia and has been involved in curricula development for academic and specialised training courses in the area of arms control and biosecurity. The presentation of Ms Novosiolova will address how active learning can be effectively and efficiently leveraged globally for teaching biosecurity in higher education institutions.

Ms. Novosiolova, you have the floor

1. *Tatyana Novosiolova, University of Bradford, UK*  
*Effective and Sustainable Biosecurity Education for those in the Life Sciences: The Benefits of Active Learning*

Ms. Novosiolova , thank you very much for this interesting presentation.

Let me now go straight to the second presentation. Our next speaker will be Mr. Gerald Walther, a PhD candidate at the Bradford Disarmament Research Centre of the University of Bradford whose research focuses on biosecurity, neuroethics, and philosophy of science. He is also the editor of the 2012 BioWeapons Monitor as well as of the Weaponization of Neuroscience section in the forthcoming Handbook of Neuroethics. In his presentation Mr. Walther will address the experiences from a series of workshops held in 2012 and 2013 to discuss science ethics education. The goal of this project, which is in its final phase, is to develop an ethics course for neuroscience that incorporates both classical neuroethics as well as dual-use neuroethics.

Mr. Walther, you have the floor

2. *Gerald Walther, University of Bradford, UK*  
*Neuroscience Dual-Use Education Network*

I thank Mr. Walther for this excellent presentation.

## **Section 2: Biosecurity, Continued Professional Development and Outreach**

We are now going to proceed with the segment focusing on continued professional development and outreach in the area of biosecurity.

This segment will first be informed by a presentation by Dr. Jo Husbands from the US National Academy of Sciences. Ms. Husbands will discuss the recent strategic educational activities of the US National Academy of Sciences to encourage education about biosecurity in the context of responsible science. Dr. Husbands is a Scholar/Senior Project Director with the Board on Life Sciences of the U.S. National Academy of Sciences, where she manages studies and projects to help mitigate the risks of the misuse of scientific research for biological weapons or bioterrorism. Dr.

Husbands is also currently an adjunct professor in the Security Studies Program at Georgetown University among other functions and qualifications.

Dr. Husbands, you have the floor.

3. *Jo Husbands, U.S. National Academy of Sciences  
Recent Activities by the U.S. National Academy of Sciences*

I thank Dr. Husbands for this interesting presentation.

Let me now turn to our fourth and last speaker for today, Dr. Dana Perkins. Dr. Perkins currently serves in a US Government-sponsored position as a member of the Group of Experts supporting the UN Security Council 1540 Committee in carrying out its mandate. Ms. Perkins served among others as the Chief of the Biological Weapons Nonproliferation and Counterterrorism Branch in the Office of the Assistant Secretary for Preparedness and Response with the US Department of Health and Human Services and as an advisor to the former Secretary of State Hillary Rodham Clinton for the 7<sup>th</sup> Review Conference of the BWC. In her presentation she discusses the value of sharing experience, lessons learned and effective practices in the area of non-proliferation of biological weapons, related materials and their means of delivery.

Dr. Perkins, you have the floor.

4. *Dana Perkins, Group of Experts, UN Security Council 1540  
Committee  
Sharing of Experience, Lessons Learned and Effective Practices in  
the Area of Non-Proliferation of Biological Weapons, Related  
Materials and Their Means of Delivery*

Dr. Perkins, thank you very much for your interesting presentation.

These four presentations certainly have given us ample food for thought on how biosecurity education and outreach can promote a culture of responsibility amongst life scientists and how the implementation of different educational measures support the implementation of the BWC or compliance with other obligations such as those foreseen by the UN Security Council resolution 1540.

Q+A

**Concluding remarks:**

I do not wish to sum up the different presentations or the rich discussion we have had today. This would simply be impossible in light of time constraints. However, allow me to highlight a few key points that I take from this event, specifically from the point of view of a government representative with responsibilities in the implementation of disarmament and non-proliferation commitments:

- It is clear that the education of life scientists about the Biological Weapons Convention and the responsibilities they have under that convention needs our continued attention and requires further efforts. Important deficits still exist today in this area, as highlighted by several speakers.

- In this context, a variety of projects have demonstrated that the biosecurity education of life scientists and associated scientists can be improved by a number of methods that have been implemented successfully, as demonstrated in the presentations this morning.
- Finally, and this is probably a central element that I retain from this side-event, is that a coherent long-term co-ordinated effort by States is required to implement biosecurity education at a number of levels. It is also important that States Parties report on their efforts to meetings of the Biological Weapons Convention, both to facilitate the development of best practice in biosecurity education and to increase confidence in compliance.
- In this context, it would be desirable that common understandings could be developed in the BWC intersessional process on the issue of implementing biosecurity education nationally, and that specific action would be adopted in this respect.

With these considerations, let me thank the different panelists for their contribution to our debate and all participants for their active engagement. And let me also once again thank the organizers of this briefing for this event.