

# Biosecurity Workshop

Developments among international scientific and health bodies on dual use issue

Maria Jose Espona  
National Defense School, Argentina

8 – 10 december 2006

## **Dual use definition:**

Materials, technology and knowledge that have both application in the civil world and in fabrication of WMD

## **Developments about dual use**

Strictly defined materials: fermenters, cell cultures

- Australia Group
- BTWC
- SC Resolution 1540 (2004)

# WHO

## World Health Assambly Resolutions

- |                  |   |
|------------------|---|
| WHA 20.54 (1967) | Human science should be used for mankind's benefit but never to do it any harm. So it concerns to the possible misuse of biology. |
| WHA 22.58 (1969) | Request to WHO DG to continue to cooperate with UN SG on the issue of CBW and the consequences of their possible use.             |
| WHA 33.3 (1980)  | Global eradication of smallpox.   |
| WHA 33.4 (1980)  | Overseeing research on orthopoxviruses.   |
| WHA 49.10 (1996) | Destruction by June 1999 of .... Related to Variola virus.  |
| WHA 52.10 (1999) | Postpones WHA 49.10   |
| WHA 55.15 (2002) | Postpones WHA 49.10   |
| WHA 55.16 (2002) | WHO Member States request the DG to examine the possible development of new tools, including modelling...                         |

# WHO

1970 Report	Health aspects of chemical and biological weapons: report of a WHO group of consultants
2004 Update	Public Health response to biological and chemical weapons: WHO guidance

The WHO Biosafety Programme is a resource to Member States for information, training and advocacy for laboratory biosafety procedures and practices. It coordinates an informal information-sharing network of international biosafety organizations and liaises with the United Nations on international regulations for transport of biohazardous materials. The programme produces and revises a variety of technical information documents on biosafety.

# WHO

IHR (International Health Regulations) adopted in 2005, EIF 2007

About CBW issues

WHO develop a strategy to respond with includes 4 main areas:

1. international preparedness;
2. global and permanent response;
3. national preparedness; and
4. preparedness for selected diseases and intoxications

Biosafety manual

Global Surveillance system

# FAO

Working group on Biosafety

International Portal on Food Safety, Animal and Plant Health

Objective: to assist in providing information to countries to achieve biosecurity

Biosecurity: describes the process and objective of managing biological risks associated with food and agriculture in a holistic manner.

# **UNESCO**

**(United Nations Educational Scientific and Cultural Organization)**

This UN organization is working in the development of an Ethical Code of Conduct for Scientist with the objective of raise awareness among the members of this community and also in strengthening the current regimes which prohibit biological weapons.

# **International Committee of the Red Cross (ICRC)**

The Red Cross is involved in different activities as part of its initiative on Biotechnology, Weapons and Humanity.

ICRC outreach the life sciences community on preventing hostile use of life sciences through work with scientists in order to adopt professional and industrial codes of conduct aimed at preventing the abuse of biological agents.

# **OECD (Organization for Economic Co-operation and Development)**

## **Global Biological Resource Centres Network (GBRCN) 2004**

- Biological Resource Centres (BRCs) are repositories of biological material and information (culture collections).
- Provide the source material for biological sciences research, quality is essential.
- Security & quality standards vary.
- OECD building international co-operation among BRCs since 1999 – TaskForce (government nominees).
- Drafting the instruments for establishment of a global network of BRCs.
- A quality network, quality standards.

**Aim:** GBRCN to provide for high quality maintenance and rapid low-cost exchange of biological arena

# OECD (Organization for Economic Co-operation and Development)

GBRCN encourages openness and exchange of biological material - which creates a responsibility to provide safeguards

Promote scientific progress **and** security

"Biosecurity oversight and codes... biosecurity information on the web."

[www.biosecuritycodes.org](http://www.biosecuritycodes.org)

This site is brought to you by the International Futures Program of the OECD and 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.

# **Cartagena Protocol on Biosafety for the Convention on Biological Diversity**

When it comes to biosecurity, it consider this issue related to the transboundary movement of living modified organisms.

It also consider the development of national biosafety frameworks (biosafety building activities).

# IAP (InterAcademy Panel on International Issues) 2005

- 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.

## IAP (InterAcademy Panel on International Issues) 2005

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.

# ICGEB (International Centre for Genetic Engineering and Biotechnology)

ICGEB plays an important role in biosafety-related issues and in the environmentally sustainable use of biotechnology.

The Centre provides an on-line, bibliographic database on [Biosafety](#), a search mechanism on risk assessment for the release of genetically modified organisms (GMOs).

This activity has now been expanded with the new [Biosafety Outstation at Ca' Tron](#).

The centre is active in enhancing the safe and peaceful use of biotechnology and is promoting the adoption of ethical codes for researchers working in life sciences.

**"There is a need for further development of internationally agreed principles on risk assessment and management of all aspects of biotechnology, which should build upon those developed at the national level. Only when adequate and transparent safety and border-control procedures are in place will the community at large be able to derive maximum benefit from, and be in a much better position to accept the potential benefits and risks of, biotechnology".**

# **Royal Academy of the UK**

Ethical code of conduct for life scientists and analysis of the situation

# **University of Bradford (Department of Peace Studies)**

Code of conduct and analysis of the situation

# **WMA (World Medical Association)**

## Code of Ethics

Urge to all WHO participants in biomedical research to consider the implications and possible applications of their work and to weigh carefully in the balance the pursuit of scientific knowledge with their ethical responsibilities to the society.

# GHSI (Global Health Security Initiative)

Since 9/11

G7 + Mexico

WHO is an expert adviser

Ministry of Health level

Objective:

- share information;
- coordinate national efforts to fight bioterrorism: and
- improve global health security.

## **GHSAG (working group from GHSI)**

A lower level group organized to develop proposals and concrete actions to improve global health security.

It has different working groups and one of them is in charge of developing a strategy for the global harmonization of biosecurity standards.

# European Union

## EU Legislation

[Contained use of genetically modified micro-organisms \(GMM\)](#)

[Deliberate release of GMOs in the environment](#)

[Decisions for the placing on the EU market of products consisting of or containing GMOs](#)

[Medicinal products for human or veterinary uses](#)

[GM food and feed](#)

[GM seeds and other plant-propagating materials](#)

[Transboundary movements of GMOs](#)

[Transport of GMOs or pathogenic organisms](#)

[Protection of workers exposed to biological agents at work](#)

[Other regulations pertaining to biotechnology safety](#)

## European Institutions

[The European Commission: Environment DG](#)

[The European Commission: Scientific Advisory Committees](#)

[Other Web Sites](#)

## Conclusion:

New ways to fight against biological proliferation and bioterrorism:

- Integral fight;
- Harmonization of instruments; and
- Appeal to the ethics

**Thank you!**