

The OPCW's expertise and knowledge of CWs, verification regime and the system of assistance and protection under the CWC as a reflection of international co-operation are being put to use to prevent and respond to chemical terrorist strikes and thus considerably diminish their potential consequences.

It can be added that pursuant to the UN SC Resolution 1540, all nations are obliged to take actions ensuring that non-State actors cannot develop, produce, use or trade CWs in the terms of the CWC. Current status of implementing the CWC is analysed with special emphasis on prevention of and response to terrorist chemical attacks.

**Key words:** Chemical Weapons Convention, chemical terrorism, assistance and protection, OPCW, National Authorities

## 31. CANADA'S GLOBAL PARTNERSHIP PROGRAM (8)

**Maureen Ellis**

Global Partnership Program  
Foreign Affairs Canada  
125 Sussex Dr. Ottawa, ON  
Canada K1A 0G2, **Canada**

Curbing the proliferation of biological weapons (BW) is an essential element of the *Global Partnership Against the Spread of Weapons and Materials of Mass Destruction*. At the Kananaskis Summit in June 2002, G8 Leaders committed to prevent terrorists, or those that harbour them, from acquiring or developing biological weapons and related materials, equipment and technology.

To this end, Canada's Global Partnership Program is investing heavily in biological non-proliferation activities in countries of the former Soviet Union.

A comprehensive strategy has been developed to help improve biological safety (biosafety) and biological security (biosecurity) with provision for addressing dual-use concerns. Raising awareness and creating a self-sustaining culture of biosecurity is a key driver of the program. Through this strategy, Canada is assisting various FSU countries to:

- develop and implement effective and practical biosafety/biosecurity standards and guidelines
- establish national and/or regional biosafety associations
- develop and deliver effective biosafety and biosecurity training
- put in place enhanced physical security measures and equipment

In addition to biosafety and biosecurity, the GPP supports a broad range of Biological Non-Proliferation projects and initiatives, including dozens of projects aimed at redirecting former biological weapons scientists. To date, most of these activities have been supported through Canada's contribution to the International Science and Technology Center

(ISTC) and the Science and Technology Centre Ukraine (STCU).

**Key words:** Global Partnership, Biosecurity, Biosafety, Biological Non-Proliferation

## 32. SOME GENETIC CHARACTERISTICS OF THE POPULATION RESIDING NEARBY NUCLEAR POWER PLANT. THE FIRST STEP (13)

**Ass. Prof. Medea Mkheidze**

Medical Academy for Postgraduate Studies  
Kamennoostrovsky prospect 47-18, St. Petersburg  
**Russian Federation**

There is Sosnovy Bor with 60 thousands of inhabitants located 80 km to the west from the centre of St. Petersburg. Here is the greatest and the oldest nuclear power plant, LNPP, with four reactors of the RMBK-1000 (Chernobyl) type. In fact every Sosnovy Bor inhabitant is connected with nuclear technologies. The strategy of the city development is formed and controlled by the policy of federal bodies. It is very difficult to have access to any demographic data and documents reflecting status of population health. Low doses of ionizing radiation are known to cause mutations in germ cells. A great part of the population of Sosnovy Bor works in the NPP and is exposed to low dose ionizing radiation.

This paper presents some genetic characteristics of Sosnovy Bor inhabitants including monogenic diseases (phenylketonuria, Duchenne muscular dystrophy, lysosomal diseases, hypothyroidism etc), chromosomal pathology (Down syndrome, Turner and Klinefelter diseases), multiple malformation syndromes and results of aFP screening of pregnant women with high rate of abnormal values of aFP and hHG.

These results are obligatory basis and the first step to conduct a study on possible genetic effects of LNPP on genetic structure of Sosnovy Bor population.

**Key words:** genetic characteristics, population, NPP

## 33. PATTERN OF MORBIDITY AND MORTALITY IN KURDISTAN / IRAQ WITH AN EMPHASIS ON EXPOSURE TO CHEMICAL WEAPON (14)

**<sup>1</sup>Ass. Prof. Dr. Kawa Dizaye, Ph.D.**

<sup>2</sup>Dr. Hamanejim Jaff

Iraq/ Erbil/ Hawler Medical University, **Iraq**

<sup>1</sup>Head of Dept. of Pharmacology

<sup>1</sup>MRCP- Dept. of Medicine

A cross-sectional survey was carried out in Kurdistan -Iraq during the period 2000-2001 to determine patterns of morbidity and mortality among Kurdistan population with special emphasis on those exposed to bombs and shell injuries and chemical weapons.

HR0700046

HR0700047

# Abstracts

Kurdistan was divided into 300 sectors; from each sector, one household was selected randomly. The total study samples were 6805 including number of the household who have died since 1935. They have a male: female ratio of 1.03:1. An interview was carried out using a special questionnaire form.

The mean age of the sample was  $51.5 \pm 0.6$  years ( $51.1 \pm 0.75$  for males and  $52.9 \pm 0.97$  for females) 1.5% and 2.8% of surveyed population have been exposed to non-chemical weapons (bomb and shells) or chemical weapons, respectively; 0.23% of the alive population had cancer at the time of the study. 12.6% in the study sample were complaining from respiratory disease and 6.5 had a history of miscarriage and stillbirth.

Both complaints might be attributed to exposure to chemical weapons. 869 (12.5%) of the study have died since 1935, 68.4% of them have died during the period 1980 – 1999. 3% of all deaths were due to exposure to shells or chemical weapons; 7.9% were lost in Al-anfal campaign in 1980s of the last century. 8.5% of all death were due to cancer probably due to exposure to chemical weapons.

**Key words:** Chemical weapon, Cancer, miscarriage, stillbirth, Kurdistan

## 34. NEW INTERNATIONAL INITIATIVES ON ENHANCEMENT OF BIOSAFETY AND BIOSECURITY REGULATIONS FOR LABORATORIES HANDLING INFECTIOUS AGENTS (8)

**Prof. Dr. Sergey V. Netesov**, Ilyia G. Drozdov  
Federal State Research Institution - State Research Center of Virology and Biotechnology "Vector" of the Federal Service for Surveillance on Consumer Rights Protection and Human Well-being,  
Koltsovo, Novosibirsk Region, 630559, **Russian Federation**

Before we entered the era of antibiotics, development of antiseptics rules and reliable water purification systems the infectious pathogens had played a major role in morbidity and mortality of global human population. The advances in revealing the nature of dangerous infections and studying their causative agents during the recent years have led not only to big progress in their control but also to the study of their potential as weapons.

During the last fifty years, several attempts have been made to use them for criminal or terrorist purposes that demonstrated that even primitively organized terrorist attacks may lead to quite significant consequences.

The October 2001 events showed that bioterrorism attacks may be prepared, probably, as a result of theft of the pathogen from a lab. All this led to the revision and radical improvement of current national rules and international recommendations in the field of handling, storage and transportation of infectious agents. As a result, during the past two years these rules have been significantly revised by

both the World Health Organization and some countries. However, their harmonization of is still far from what is desired.

Therefore, biosafety professionals in some countries, including those of the European Union, are establishing professional biosafety associations. In addition, new initiatives are being proposed to develop internationally harmonized biosecurity rules to govern dangerous pathogens handling and storage.

### The most important of them are as follows:

1. Development, under the auspices of WHO, of new recommendations concerning a set of requirements to provide physical security of both biological agents and laboratories involved in research on extremely hazardous infections;
2. Enhancement, under the auspices of WHO, of current international recommendations on inventory procedures and regulations, inventory monitoring, and transportation of specimens and strains of extremely hazardous infections;
3. Establishing international associations of biosafety experts from different countries and regions in order to improve the international integration of efforts in this field and harmonization of said rules and regulations;
4. Continued development of international codes and rules of ethics for scientists and experts handling dangerous pathogens.

In Russia these new initiatives were met with complete understanding, and some of them were considered as being extremely important. In particular, a decision was made to revise and enhance the current inventory procedures and regulations, those of inventory monitoring, and transportation of specimens and strains of extremely hazardous infections; and develop special additional regulatory documents in this area. At the same time, a significant amount of work should still be done to implement the above-mentioned proposals and approaches in biosafety and biosecurity taking into account the current situation in this field in Russia.

**Key words:** biosafety, biosecurity, infectious agent, pathogen

## 35. THE PROBLEM OF NEUTRALIZATION OF REACTIONARY MASSES IN THE RUSSIAN TECHNOLOGIES OF CWD (14)

**Dr. Vadim Petrov**  
Institute of Applied Mechanics UrB of the Russian Academy of Science  
34 T. Baramzina St., Izhevsk, 426067, **Russian Federation**

December 11, 2006 at Conference of OPCW terms of destruction of the chemical weapon for Russia and USA were prolonged to 5 years, till April, 29, 2012. At all intentions to achieve these terms in the Russian technologies are available a number of technical



HR0700048



HR0700049