

With respect to viral therapeutics, one of the major limitations associated with antiviral drugs is acquired drug resistance caused by antigenic shift or drift. A number of next-generation prophylactic and/or therapeutic measures are on the horizon. Of these, nucleic acid-based drugs are showing great antiviral potential.

These drugs elicit long-lasting, broad spectrum protective immune responses, especially to respiratory viral pathogens. The Nucleic Acid-Based Antiviral (NaVirCept) project provides the opportunity to demonstrate the effectiveness of novel medical countermeasures against military-significant endemic and other viral threat agents.

This project expands existing DRDC drug delivery capability development, in the form of proprietary liposome intellectual property, by coupling it with leading-edge nucleic acid-based technology to deliver effective medical countermeasures that will protect deployed personnel and the warfighter against a spectrum of viral disease agents.

The technology pathway will offer a means to combat emerging viral diseases or modified threat agents such as the bird flu or reconstructed Spanish flu without going down the laborious, time-consuming and expensive paths to develop countermeasures for each new and/or emerging viral disease organism.

56. DUAL-USE THREAT ASSESSMENT FRAMEWORK - AN ATTEMPT TO QUANTIFY THE RISK (8)

¹Dr. Eric R. Stephen, ¹Jacques J. Lavigne and ²Brian Colton

¹Directorate Science & Technology Human Performance, Defence R&D Canada and ²Departmental Biotechnology Office, Health Canada, **Canada**

Advances in the biosciences over the past decade have been rapid and transformative. While these advances offer significant benefit to society, they also provide very significant challenges in terms of security. Concerns over misuse and/or accidental use/release (dual use) although not new, are now being viewed through the security lens.

There is a wide-spread view that public or private sector scientists, supported through investments by pharmaceutical, environmental and agricultural interests working in the fields that comprise biotechnology, possess the ability to assess the implications of their own work and work within a regime of self-control that is for the most part self-governing (codes of practice). On the other end of the spectrum are those that would codify or legislative control. All this is being done in the absence of a mechanism for quantifying the threat.

This presentation will discuss the development of an assessment framework that addresses both actual and potential threats. The framework was developed based on available intelligence and other open source information along with interviews with those persons familiar with the concept of dual use and the multiple, sometimes competing agendas of a

variety of interest groups. The framework will help to bring some clarity to the discussion and at the same time, help to inform those that are positioned to respond to the threat.

57. INTELLIGENCE AND SECURITY STANDARDS ON INDUSTRIAL FACILITIES PROTECTION IN CASE OF TERRORISM AND MILITARY ATTACK (6)

MS Davor Stipetic

Office of the Croatian Government
Croatia

Industrial facilities, which use toxic chemicals in their production processes, are tempting targets for military and terrorist strategists. They know that these facilities when attacked could produce effects not realizable with conventional weapons. The resulting legal, policy and political consequences would be minimal as compared to that of disseminating toxic chemicals or chemical agents as weapons on enemy territory. At this time there is no clear definition of the legality or illegality of these types of actions used against specific industrial targets for the purpose of mass destruction or disruption.

Without clearly defined international regulations covering these actions, we must depend solely on national defense systems. Not only are these regulations not defined, there are no implementation tools, which would be available if the various treaties (CWC/BWC) etc., were able to incorporate needed legislative action. Consequently we must depend on and put into practice defense security standards for industrial facilities for protection against both possible terrorist and military attacks.

Emergency responses to incidents involving violent criminals and terrorists are extremely dangerous. Incidents involving weapons of mass destruction, firearms, and hazardous materials have resulted in the injury and death of many firefighters, police officers and medical personnel. We wish to intend display place and role of intelligence and counter intelligence system to prevention potential target and military attack.

Security needs to be incorporated into the public safety culture and it must become the routine for how we operate. The recognition and identification process is an important skill that needs continual refinement. The use of transportation or facility paperwork assists in recognizing what potential hazards. A key factor in the successful command and management of a hazmat incident or terrorism event is the ability of public safety agencies to function as a team.

A terrorism event or hazmat crime brings multiple agencies together, but their integration needs to be seamless. Response to these incidents presents acute and long term health risks to public safety personnel. There are many factors involved in the selection and use of protective equipment. New threats and technology are emerging. Then we will describe the specific situation by participating in joint-agency



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