

# Take Russia to 'task' on bioweapons transparency

Raymond A Zilinskas

**In the run-up to his reelection, Russian president Vladimir Putin outlined 28 tasks to be undertaken by his administration, including one that commanded the development of weapons based on “genetic principles.” Political pressure must be applied by governments and professional societies to ensure that there is not a modern reincarnation of the Soviet biological warfare program.**



Raymond A. Zilinskas

Last month, Vladimir Putin reclaimed his position as Russia's president, bringing about a moment of déjà-vu. For a hint of what's to come, though, one should look back to 22 March when he chaired a meeting attended by his ministers to discuss implementing 28 tasks that he had developed during his recent campaign to be undertaken by his new administration. There, Russia's Minister of Defense Anatoly Serdyukov told Putin that his office had “thoroughly studied your article [in which the tasks are listed and explained] and prepared a plan for implementing the tasks.” Notably, fourth on Putin's list is a task that calls for “the development of weapons based on new physical principles: radiation, geophysical, wave, genetic, psychophysical, etc.” (<http://premier.gov.ru/eng/events/news/18490/>; by 4 April, task 4 had been removed).

In view of Russia's history, Serdyukov's promise poses grave concerns. Developing weapons based on “genetic principles” would be a violation of the 1972 Biological and Toxin Weapons Convention (BWC), of which Russia is a State Party. According to the UN, the BWC “effectively prohibits the development, production, acquisition, transfer, retention, stockpiling and use of biological and toxin weapons.” (<http://www.unog.ch/bwc/>). In this way, the BWC serves as an important tool to prevent the proliferation of so-called weapons of mass destruction.

The convention specifies that if a member state has concerns that another party is violating the agreement, it should act “to consult bilaterally and multilaterally to solve any problems with the implementation of the BWC.” Thus, BWC member states should immediately insist on consulting with Russia for the purpose of having task 4 clarified, as well as request transparency in regards to the operations of the Ministry of Defense's biological research institutes and their culture collections. Professional societies, such as the American Society for Microbiology (to which I belong), ought to support actions by governments in this regard, as it goes along with their ethical precepts.

Perhaps part of the problem is that Russia has inherited a half-hearted commitment to the BWC from the USSR. For example, while the Soviet Ministry of Foreign Affairs negotiated the BWC with the US and other governments in the early 1970s, the Soviet Central Committee was simultaneously planning to establish the world's largest and most sophisticated biological warfare program managed by a new agency called Biopreparat. Under a program code-named Ferment its main objective was to apply the recently discovered genetic-engineering technique to develop highly virulent pathogens for biological weapons.

The Soviet government ratified the BWC in 1975, thus signifying full adherence to the convention. But by then its biological weapons program was well underway, and it continued until at least 1992. At its height, Biopreparat was managing about 40 major research institutes, production plants and other industrial units, staffed by a work force of between 40,000 and 60,000 people, while the Ministry of Defense was operating three large biological research institutes and a large open-air testing facility.

Milton Leitenberg, of the University Maryland's Center for International and Security Studies in College Park, and I describe the history, work program, attributes and accomplishments of Biopreparat in

exhaustive detail in a book titled *The Soviet Biological Warfare Program: A History*, which will be published by Harvard University Press next month. We describe how Biopreparat and Ministry of Defense scientists weaponized bacterial species using genetic engineering. These scientists enhanced microbes such as *Bacillus anthracis*, *Francisella tularensis* and *Yersinia pestis* by, for example, endowing them with the ability to resist multiple antibiotics and altering their cell-wall composition to resist vaccines and diagnostics used in NATO countries. A project code-named Factor sought to transfer genes coding for certain peptides into *Legionella pneumophila* that would trigger multiple sclerosis-like symptoms. Methods were developed for the mass production of variola virus and Marburg virus in cell culture, which was a vast improvement over earlier production techniques that used embryonated eggs.

Russian president Boris Yeltsin admitted early in 1992 that the USSR had operated an offensive bioweapons program in violation of the BWC. He then attempted to close down the program but was undermined by the Ministry of Defense, which kept its biological research institutes operating and their work programs secret. In September of 1992, Russia, the US and the UK signed a trilateral statement in which Russia pledged to allow its Western counterparts access to these bioweapons facilities. But, in subsequent years, it failed to deliver on the hope of transparency. Further, Yeltsin's 1992 admission was reversed by Putin after he became acting president in 1999, and Russia's official position since then is that the USSR never had an offensive bioweapons program and had only conducted defensive research as permitted by the BWC.

The three Ministry of Defense bioweapons institutes today remain as inaccessible to all foreigners and most Russians as during the Soviet era. They presumably preserve their culture collections and institutional memory, including complete ‘recipes’ of weaponized agents and formulations, methods of dispersal, engineering specification of munitions and many other details. This is in contrast to the actions that followed President Richard Nixon's termination of the US biowarfare program in 1969 when members of the press corps and congressional staffers were permitted to observe the destruction of biological weapons.

There are no signs that the Russian government will scale back its biological institutes that once directed the Soviet bioweapons program or destroy related culture collections. Under these conditions, Putin's task 4 is ominous. Having been forewarned, BWC state parties must try to impress on the Putin administration that it is imperative for it to practice transparency by opening its closed bioweapons institutions to outside access, acknowledging the illegal Soviet bioweapons program of the past, revealing its accomplishments, including weaponized pathogens, and publicly destroying Soviet recipes. Unfortunately, given its past behavior on bioweapons-related issues, the Russian government is unlikely to take any of these steps. Yet, by governments and professional societies applying this kind of political pressure, task 4 is likely to at least be hindered from being realized.

*Raymond A. Zilinskas is director of the Chemical and Biological Weapons Nonproliferation Program at the Monterey Institute of International Studies in Monterey, California, USA.*