

## Anti-Chemical Properties of Modular Protective Material

V.V. Zavyalov<sup>1</sup>, N.V. Zavyalova<sup>1</sup>, V.I. Kholstov<sup>1</sup>, V.A. Kovtun<sup>1</sup>,

V.K. Gorelenkov<sup>2</sup>, G.A. Frolov<sup>3</sup>, I.V. Lyagin<sup>4</sup>, N.A. Stepanov<sup>4</sup>, E.N. Efremenko<sup>4</sup>

<sup>1</sup> Federal State Budgetary Establishment «27 Scientific Centre» of the Ministry of Defence of the Russian Federation. Entuziastov passage, 19, Moscow, 111024, Russian Federation

<sup>2</sup> Limited Liability Company «Scientific Research Institute of Elastomer Materials and Products». Perovsky Passage 2, Moscow 111004, Russian Federation

<sup>3</sup> National University of Science and Technology MISIS. Leninsky Avenue 4, Moscow 119049, Russian Federation

<sup>4</sup> Lomonosov Moscow State University, Faculty of Chemistry. Lenin Hills 1-3, Moscow 119991, Russian Federation

Received 21 January 2022. Accepted for publication 20 March 2022

Previously, we developed the principle of constructing modular materials with specified properties, according to which organometallic composites, with nanoscale enzyme complexes introduced into them, are applied to a unified fabric platform. The resulting composites become a new platform for heterogeneous biocatalysis. Such a platform has high stability and good catalytic selectivity. The *aim of the work* is to study the properties of a unified fabric platform and to establish the possibility of giving materials (tissues) anti-chemical protective properties. The paper analyzes scientific and practical information on the production of composite fibrous materials with frame fibrous layers. The properties of a unified tissue platform and the mechanisms of protective action due to the enzyme-containing formulation applied to it are investigated. As a unified fabric platform on which other special modules are applied, it is proposed to use para-aramid protective fabric (Rusar fiber), as well as other types of fabrics – mixed aramid-viscose, aramid-cotton, aramid-polyacrylate, metaaramide (Nomex fiber). The physical properties and chemical structure of aromatic polyamides, possible directions for the production of aramid fibers, the structure and structure of aramid fibers, the mechanisms of chemical processes in polyimide compositions of various compositions are considered. Approaches to giving materials (tissues) anti-chemical protective properties are determined. The catalytic characteristics of fibrous materials functionalized by enzyme-polyelectrolyte complexes carrying out hydrolysis of organophosphorus compounds and mycotoxins have been studied.

**Keywords:** *anti-chemical properties of modular materials; enzymes of destruction of organophosphorus compounds; protective composite materials and fabrics; specific properties – self-purification (self-degassing).*

**For citation:** Zavyalov V.V., Zavyalova N.V., Kholstov V.I., Kovtun V.A., Gorelenkov V.K., Frolov G.A., Lyagin I.V., Stepanov N.A., Efremenko E.N. *Anti-Chemical Properties of Modular Protective Material // Bulletin of the RCB protection. 2022. V. 6. № 1 C. 12–27. <https://doi.org/10.35825/2587-5728-2021-6-1-12-27>*

### **Conflict of interest statement**

The authors declare that the research was conducted in the absence of any commercial or financial relationship that could be construed as a potential conflict of interest.

### **Peer review information**

The article has been peer reviewed by two experts in the respective field. Peer reviews are available from the Editorial Board and from Russian Science Citation Index database.

**Funding.** This work was carried out with the financial support of the Russian Foundation for Basic Research (RFBR) (Grant № 18-29-17069).

**References**

See P. 24–25.

**Authors**

Federal State Budgetary Establishment «27 Scientific Centre» of the Ministry of Defence of the Russian Federation. Entuziastov passage, 19, Moscow 111024, Russian Federation.

*Vasily Vladimirovich Zavyalov*. Senior Researcher. Candidate of Chemical Sciences. Professor of the Academy of Military Sciences. Grant team member.

*Natalya Vasilyevna Zavyalova*. Leading Researcher. Doctor of Biological Sciences, Professor. Academician of the Academy of Military Sciences. Grant team member.

*Viktor Ivanovich Kholstov*. Member of the Dissertation Council of the «27 Scientific Centre» of the Ministry of Defence of the Russian Federation. Doctor of Chemical Sciences, Professor. Honored Chemist of the Russian Federation. Academician of the Russian Academy of Natural Sciences and the Academy of Military Sciences. Corresponding Member of the Russian Academy of Sciences and the Russian Academy of Rocket and Artillery Sciences.

*Viktor Aleksandrovich Kovtun*. Head of the Centre. Candidate of Chemical Sciences, Associate Professor.

Limited Liability Company «Scientific Research Institute of Elastomer Materials and Products». Perovsky Passage 2, Moscow 111024, Russian Federation.

*Valentin Konstantinovich Gorelenkov*. Leading Researcher. Doctor of Chemical Sciences, Professor. National University of Science and Technology MISIS. Leninsky Avenue 4, Moscow 119049, Russian Federation. Grant team member.

National University of Science and Technology MISIS. Leninsky Avenue 4, Moscow 119049, Russian Federation.

*George Alexandrovich Frolov*. Candidate of Chemical Sciences, Associate Professor. Grant team member.

National University of Science and Technology MISIS. Leninsky Avenue 4, Moscow 119049, Russian Federation.

*George Alexandrovich Frolov*. Candidate of Chemical Sciences, Associate Professor. Grant team member.

*Ilya Vladimirovich Lyagin*. Senior Researcher. Candidate of Chemical Sciences. Grant team member.

*Nikolaj Alekseevich Stepanov*. Candidate of Technical Sciences. Grant team member.

*Elena Nikolayevna Efremenko*. Laboratory Chief. Doctor of Biological Sciences, Professor. Grant team member.

**Contact information for all authors:** 27nc\_1@mil.ru

**Contact person:** Natalya Vasilyevna Zavyalova; 27nc\_1@mil.ru

# U.S. Biowarfare Labs in Post-Soviet States

© АВТОР, 2022  
УДК 606; 601.4; 608.3  
<https://doi.org/10.35825/2587-5728-2022-6-1-28-43>

Ján Lakota

Centre of Experimental Medicine, SAS, Dubravská cesta 9, 841 04 Bratislava,  
Slovakia Faculty of Management Comenius University, Odbojárov 10,  
820 05 Bratislava, Slovakia

Received 30 January 2022. Accepted 20 March 2022.

The collapse of the Soviet Union in 1991 led to the creation of 15 weak states that have on their territory the remnants of the defensive infrastructure of the mighty superpower – the USSR. The United States and its NATO allies have taken advantage of this situation to gain scientific and technical knowledge previously unknown to them and, through the Cooperative Threat Reduction (CTR) Program, have begun dismantling weapons of mass destruction-related facilities in the former republics of the Soviet Union. Under the pretext of reducing the risk of bioterrorism and preventing the spread of technologies and knowledge that allow the creation of biological weapons (BW), the United States surrounded Russia and Belarus with a network of biological laboratories subordinate to the US Department of Defense. *The purpose of this work* is to describe the real picture of the activities of American military biological laboratories in the states of the former USSR. Only open sources were used in the work. At least 50 US military biological laboratories along the perimeter of Russia and Belarus have been established: in Armenia – 12; at least 8 in Azerbaijan; at least 11 in Ukraine; in Moldavia – 1; in Georgia – 12; in Kazakhstan – 6; in Tajikistan – at least 4 large and an unknown number of small laboratories; in Uzbekistan – at least 8. Their dual purpose is evidenced by the fact that their activities, contrary to paragraph 10 of the Biological Weapons Convention, are kept secret. In these laboratories, work with dangerous coronaviruses, potential agents of biological weapons (plague, tularemia, hemorrhagic fevers, brucellosis, etc.) is underway. What is rather alarming, experiments are being conducted to restore the genome of the causative agent of the plague, which caused the «black death» pandemic in the XIV century (Kazakhstan, Alma-Ata). In addition, data on «strange» outbreaks of human and animal diseases, the emergence of previously unseen species of animals (mosquitoes, flies, bats ect.), agricultural disasters around these laboratories, indicate that Americans do not comply with expensive measures of special safety precautions necessary when working with dangerous pathogens. The latter circumstance poses a direct danger not only to the countries that have provided their territory for them, but also to Russia and Belarus. The problem of American biological laboratories around Russia and Belarus requires a radical solution for a long time.

*Keywords:* bacteriological labs of the USA; biological weapons; BTRP; CTR program; NATO; Nunn-Lugar Act; United States.

*For citation:* Lakota Ján. U.S. Biowarfare Labs in Post-Soviet States // *Journal of NBC Protection Corps*. 2022. V. 6. № 1. P. 28–43. <https://doi.org/10.35825/2587-5728-2022-6-1-28-43>

## Introduction<sup>1</sup>

In October 2018, the journal of «Science» released an article titled «Agricultural Research or a New Biological Weapons System?» In this article,

German and French microbiologists expressed the view that the US was preparing for a bacteriological war, possibly thousands of kilometers away from their own borders. This article talked about a

<sup>1</sup> The article was completed by the author in early 2022, and it was submitted to the editorial office on January 30, 2022. Its author, rightly pointing out that the situation with the Pentagon's biocenters around Russia developed for a long time, could not have known that Russia would begin to solve this problem in the very near future. In Ukraine, the liquidation of such biocenters began on February 24, 2022, therefore, the materials of this article should be considered as a «slice of the situation» for the beginning of the liquidation of American military biological facilities along the perimeter of Russia (**Note added by the reviewer**).

Pentagon program called Insect Allies<sup>2</sup>, which involves major biological experiments and experiments whose results could be used for military purposes [1]. According to the article «Natural outbreaks and bioterrorism: How to deal with the two sides of the same coin?» it is absolutely «...important to consider them separately. To create an efficient way to detect and contain them, the first step is to anticipate them by performing continuous scientific and epidemiological monitoring [2]. Still, the most serious and unpredictable events are referred to as «Black swan events» and despite our inability to foresee their occurrence, knowledge keeps being the key concept to anticipate them [3]. Thus, we need to continue and intensify networking at local, regional and global levels». From this point the task of the Russian Federation to control all biological facilities in former Soviet Union states is legal and must be accepted without any doubts and hesitations.

### Main

As the collapse of the Soviet Union appeared imminent, the United States and their NATO allies grew concerned of the risk of nuclear weapons held in the Soviet republics falling into enemy hands. The Cooperative Threat Reduction (CTR) Program was an initiative housed within the Defense Threat Reduction Agency (DTRA). The CTR program is better known as the Nunn-Lugar Act (really the Soviet Nuclear Threat Reduction Act of 1991) which was authored and cosponsored by Sens. Sam Nunn (D-GA) and Richard Lugar (R-IN). This Act was created in 1986 in a congressional meeting. According to the CTR website, «the purpose of the CTR Program is to secure and dismantle weapons of mass

destruction and their associated infrastructure in former Soviet Union states». An alternative explanation of the program is «to secure and dismantle weapons of mass destruction in states of the former Soviet Union and beyond» [4].

One part of the CTR (Biological Threat Reduction Prevention (BTRP) Program – FSU) states that «The BTRP program's objectives are to reduce the risk of bioterrorism and prevent the proliferation of biological weapons (BW) technology, expertise, and extremely dangerous pathogens (EDPs)<sup>3</sup>. The U.S. has CTR implementing agreements with Kazakhstan, Uzbekistan, Georgia, Azerbaijan and Ukraine to assist them in preventing the proliferation of BW materials and expertise to rogue states and terrorist groups, increase transparency, encourage high standards of conduct by scientists, and preempt a «brain drain» of bio-related expertise. All BTRP projects in Russia fall under the International Science & Technology Center (ISTC) Agreement and the ISTC Funding Memorandum of Agreement<sup>4</sup>. The U.S. – Kazakhstan WMDIE Implementing Agreement covers BTRP projects in Kazakhstan. Biological Threat Reduction Implementing Agreements have been signed with Uzbekistan, Georgia, Azerbaijan and Ukraine. This program is executed through three projects, each of which serves a different objective of the CTR Program<sup>5</sup>.

«The Nunn-Lugar Vision» states that «Nunn-Lugar is not merely a program or a funding source or a set of agreements. It is an engine of expertise and cooperation that can be applied around the world — and must be. To meet the threats of the 21st century, the United States must send the clear message that we are willing to go anywhere to reduce threats of weapons of mass destruction —

<sup>2</sup> Osborne H. DARPA Is Making Insects That Can Deliver Bioweapons, Scientists Claim [https // Newsweek](https://www.newsweek.com/darpa-biological-weapons-insects-scientists-warn-1152834). 2018. 10 April. [www.newsweek.com/darpa-biological-weapons-insects-scientists-warn-1152834](https://www.newsweek.com/darpa-biological-weapons-insects-scientists-warn-1152834) (date: 02.01.2022)

<sup>3</sup> Article I of Biological and Toxin Weapons Convention (BTWC) gives the following definition BW: «Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain: (1) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; (2) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict».

<sup>4</sup> The International Science and Technology Center was established in November 1992 in Moscow by the CIS countries with the United States, the European Union and Japan, ostensibly for the professional retraining of researchers who worked in the defense industry of the former Soviet Union. Its main task was to prevent the proliferation of nuclear and bacteriological (biological) weapons. In 2005, U.S. President Barack Obama visited one of the ISTC facilities in Russia. The ISTC operated in eleven closed Russian cities, with enterprises focused mainly on the defense industry. Among them was even the Federal Nuclear Center in Sarov. The order, signed on 11.08.2010 by the President of the Russian Federation Dmitry Medvedev, reports that at the suggestion of the government (headed by Vladimir Putin), Russia withdrew from the constituent documents of the ISTC relating to 1992 and 1993. Gradually, the ISTC and other countries are coming out [5]. At the beginning of the year 2022, the parties to the ISTC were Armenia, Georgia, Tajikistan, and Kyrgyzstan. The headquarters of the ISTC is located in Nur Sultan (Kazakhstan). During the period 1994–2009, about 60 thousand Russian scientists participated in ISTC programs. (**Note added by the reviewer**).

<sup>5</sup> Global Security Engagement: A New Model for Cooperative Threat Reduction National Academies of Sciences, Engineering, and Medicine. 2009. Global Security Engagement: A New Model for Cooperative Threat Reduction. Washington, DC: The National Academies Press. <https://www.nap.edu/read/12583/chapter/20#160> p.160-161 (date: 30.12.2021).

<https://web.archive.org/web/20070927215354/http://www.dtra.mil/oe/ctr/programs/> (date: 30.12.2021).

the most remote places, using the most unusual means, with the most unlikely partners<sup>6</sup>».

However, there has been no exchange of knowledge and experience in the field of biological threat reduction. On the contrary, all those 30 years after the «collapse» of the USSR, the activities of American biological laboratories are surrounded by a layered secrecy. The number of such laboratories is growing. All the lofty phrases about transparency and openness, as it turned out, were aimed at «extracting knowledge» from former Soviet specialists who worked on programs for the study of dangerous pathogens. The U.S. thus gained access to dual-use expertise that can not only enhance its readiness for biological threats; but also create a biological threat to other states.

*The purpose of the work* is to show the real picture of the activities of US military biological laboratories in the states of the former USSR.

The fact that secret American laboratories can have a «dual purpose» is openly stated by many experts and politicians, who note that in this way, under the pretext of combating bioterrorism, the United States acts in its own interests, strengthening its position in the post-Soviet space. Under the research of «dual use», in particular, we mean the research in the field of resistance of microorganisms to all types of antibiotics, to various antimicrobial drugs. As a result, pathogenic microorganisms change their properties and become «more evil». Research is underway in the field of breeding «chimera strains» that overcome human immunity, as well as experiments with making genetic changes in insects that allow them to turn into convenient containers for the transfer of pathogens. Today, it is not very difficult to deliver such mutant insects to different parts of the globe. Some laboratory complexes, such as the Richard Lugar Center for Public Health in the suburbs of Tbilisi, are officially included in the US military system of global control over the spread of infectious diseases. The United States does not want to create an international body that would monitor the implementation of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons. In this convention, the countries agreed that there are great risks from biological weapons, that they are unpredictable. However, there is no monitoring mechanism for this international agreement. Washington ratified the convention in 1972, but in 2001 refused to adopt a protocol that would allow its implementation to be monitored [6].

The investigation confirmed that no materials are available on the official websites indicating the control of the activities of biological laboratories by state authorities or relevant international structures. However, this is quite understandable: protection from national regulatory authorities is included in the terms of the international agreement on the establishment of NTCU, and the Americans do not allow international inspectors into their laboratories. KPMG's audits do not address this range of issues. It is the secrecy and scope of this activity, as well as involvement in the projects of the US Department of Defense, that make us think about the developments carried out by the Americans in the field of biological weapons. Many experts express fears that American laboratories may have a «dual purpose» and, under the pretext of combating bioterrorism, the United States is conducting experiments in the field of resistance of microorganisms to all types of antibiotics, to various antimicrobial drugs, in the field of breeding «chimera strains» which could overcome human immunity, as well as experiments with making genetic changes in insects, allowing them to turn into convenient containers for the transfer of pathogens. The layout of U.S. biolaboratories outside the U.S. is shown in Figure 1. Below we will look at what is known about their number and activities.

**Baltic states.** So far there is no evidence for the presence of biological laboratories in the Baltic states. However, it should be noted that in 2018 a strange incident occurred in Lithuania. With the title: «On the relationship of outbreaks of African swine fever, resistant to low temperatures, with the development of a network of American bacteriological laboratories in the former Soviet republics» So, in June 2018 Lithuania recorded outbreaks of ASF (African swine fever) and destroyed more than 20 thousand animals, and the Minister of agriculture of Lithuania encouraged the farmers to switch to raising rabbits, and turkeys, and promising every support [7]. «Statistics of the incidence of ASF in the Baltic states is paradoxical. The fact is that the atypical resistance of the virus of African swine fever to the conditions of Northern latitudes could be created only in laboratory conditions» – suggests Khrolenko and calls biological research center of the Pentagon in Fort Detrick, the main suspect in the spread of the virus<sup>7</sup>.

**Moldavia.** Here the aim of the laboratories is closed by seven seals. «In 2020 U.S. diplomats frankly acknowledged Moldavia's participation in

<sup>6</sup> Nikitin M. The Evolution of Cooperative Threat Reduction: Issues for Congress. Updated November 23, 2015. <https://sgp.fas.org/crs/nuke/R43143.pdf> (date: 02.01.2022).

<sup>7</sup> The Baltic States support the bacteriological labs of the Pentagon // The Baltic Word. <https://balticword.com/the-baltic-states-support-the-bacteriological-labs-of-the-pentagon/> August 13, 2018 (date: 11.01.2022).



**Figure 1 – Location of American biological laboratories outside the national territory. There are two groups of them. The first covers China, Iran, Turkey, Russia, Belarus. The second is located in sub-Saharan Africa and South Africa, i.e. where the most dangerous pathogens of a viral and bacterial nature are widespread and where their study seems justified. The scheme is taken from the site: <https://112.international/society/us-biolaboratories-in-ukraine-how-dangerous-are-they-for-population-54975.html> (date: 31.12.2021)**

the U.S. Department of Defense's biosafety and biosurveillance programs, as well as the presence in the post-Soviet space, including the territory of Moldavia, of biological laboratories that not only conduct «peaceful research and development of vaccines,» but also store dangerous pathogens and threatening pathogens. Although officially they are talking about scientific projects and countering the threat of outbreaks (including deliberate and accidental) of the most dangerous infectious diseases in the world, it seems that the activities of these biological laboratories in Moldavia are, as mentioned above, a secret behind seven seals, including for the national authorities. In total, about \$ 4 million was allocated to Moldavia for scientific projects of various orientations, but where the main amounts go remains «behind the scenes». The history of cooperation between the Moldavian authorities and the STCU dates back to the year 2003, when it was decided to join the Agreement on the Establishment of the STCU. In December 2003, the Parliament adopted Law No. 531 on the accession of the Republic of Moldavia to the Agreement on the Establishment of the Scientific and Technological Center. After the law came into

force on January 1, 2004, the Foreign Ministry prepared and handed over the depositary accession documents, including a cover letter from the then President of the country Vladimir Voronin. Coordination of activities for the implementation of the provisions of the Agreement is entrusted to the Academy of Sciences of Moldova. Over the past 14 years, the foreign staff of the center has had a special status in Moldavia and enjoys a number of benefits. According to media reports, in the year 2008 a central reference laboratory was launched in Moldavia which was controlled by the official Chisinau only formally. As in other countries, national authorities are deprived of the opportunity not only to verify the experiments carried out, but even to receive full information about them. At the same time, the administrative and technical staff of the STCU has access to the results of scientific works of any Moldavian research institutes, to the entire heritage of biologists and chemists of the Soviet period. Journalists and experts from other countries, including Moldova, joined the discussion of this issue. Many remembered the unexplained outbreaks of atypical diseases, mass poisonings, which have been registered in Moldavia in recent

years. Some of these diseases have never been found in Moldavia or belong to the class of forgotten. We are talking about a series of cases of leptospirosis, tularemia, African swine fever, and the detection of cholera pathogens in water. Scientists note that it is too cold for the African swine fever virus in Moldavian region, and the disease could not spread naturally. At the same time, outbreaks recurred in January, March and December 2018. It turns out that along with the storage of dangerous pathogens in Moldavia, «peaceful research and development of vaccines» are being conducted, but all experiments under American programs are classified<sup>8</sup>. As follows from the reports of the STCU, in total, for the entire period of cooperation, about \$ 4 million was allocated for projects in Moldavia, of which the lion's share was provided by the US government. Over the past few years, Moldavia, according to official data, has annually received more than \$ 200 thousand from the NTCU for the implementation of scientific projects of various orientations. Where the main amounts go – remains «behind the scenes».

For example, the latest published report for the year 2018 contains information on the financing of new projects in Moldavia in the amount of \$ 211,5 thousand, while mentioning only one specific project worth \$ 24,6 thousand, which is associated with the development of new energy-saving technologies. The activities of biological laboratories and studies of dangerous pathogenic microorganisms are not reported in official reports.

Earlier, the Ministry of Defense of the Republic of Moldavia in an exclusive comment for Noi.md reported that Moldova is not involved in any projects related to military biology, either on the territory of the country or abroad. According to the Command of the Ground Forces of the National Army of the Republic of Moldavia, this country «does not participate in any international missions of a military-biological nature». However, according to experts, this may indicate the degree

of admission and, accordingly, the awareness of the military leadership regarding US developments and their goals. We can talk about both joint medical projects to defeat viruses and dangerous bacteria, and tests of new types of biological weapons of mass destruction. Since the work of secret American biological laboratories directly concerns every citizen, residents of the country have the right not only to count on a certain level of transparency, to have information about these activities, but also to participate in the discussion and decision-making related to the permission to conduct biological experiments in Moldavia.

Moreover, as many experts and commentators note, the admission of any interested persons and representatives of other countries to the territory of the Republic of Moldavia for these purposes should occur only after a broad public discussion at various levels or even a national referendum. In their opinion, in today's conditions, the problems of ensuring biological safety, which traditionally undeservedly occupy the last places in the list of tasks of the Moldavian authorities, should become one of the priorities<sup>9</sup>.

**Ukraine**<sup>10</sup>. For an introductory information let's start with the copy of the speech of the Ukrainian deputate Viktor Medvedchuk:

«I, as the Chairman of the Political Council of the Opposition Platform – For Life, together with the MP from our political force Renat Kuzmin addressed a deputy inquiry to the President of Ukraine V. Zelensky, Prime Minister D. Shmygal, Minister of Health M. Stepanov and the head of the SBU I. Bakanova and demanded information regarding the work of 15 US military biological laboratories in Ukraine, that that carry out illegal activities that threaten the life and health of Ukrainian citizens, as the European media openly write about. We demand that the authorities make public the facts of illegal «cooperation» between Ukraine and the United States in the field of the functioning of American biological laboratories

<sup>8</sup> By the way, where are the «vaccines», about which so much has been said over the past 14 years? (Note added by the reviewer).

<sup>9</sup> Investigation Noi.md (Moldavian news portal): What are American biological laboratories hiding in Moldavia? 30 apr. 2020. <https://noi.md/ru/analitika/rassledovanie-noi-md-cto-skryvayut-amerikanskie-biolaboratorii-v-moldove> (date: 11.01.2022).

<sup>10</sup> Although U.S. authorities insist that the biological laboratories found in Ukraine were engaged exclusively in scientific activities, and call Moscow's statements that biological weapons were developed in them «propaganda,» not everyone in the West believes them. The British newspaper «The Daily Expose» on 24.02.2022 published an article «Is there more to the Ukraine/Russia conflict than meets the eye?», which claims that for many years the United States created a network of military biological laboratories in Ukraine and Russia simply could not react to this situation. <https://dailyexpose.uk/2022/02/24/is-there-is-more-to-the-ukraine-russia-conflict/> (date: 12.03.2022). Documents on the financing of these institutions also confirm that it was the Pentagon that provided them with grants. This was found out by Daily Wire host Michael Knowles. At the same time, as Knowles noted in the release of his program, these documents confirming the military-biological activities of the United States were recently removed. [https://www.youtube.com/watch?v=lxAVIXr\\_5LE](https://www.youtube.com/watch?v=lxAVIXr_5LE) (date: 12.03.2022). Pre-existing suspicions about the development of biological weapons in American biological laboratories in countries that are essentially US colonies are confirmed by the documents seized by the Russian military during the operation in Ukraine. [https://ria.ru/20220306/biooruzhie-1776951830.html?utm\\_source=yxnews&utm\\_medium=desktop](https://ria.ru/20220306/biooruzhie-1776951830.html?utm_source=yxnews&utm_medium=desktop) (date: 07.03.2022) (Note added by the reviewer).

in our country – «cooperation», which began in President Yushenko's time, continued under President Poroshenko and was carried out under the present government. In particular, in Ukraine there is a «Scientific and Technical Center in Ukraine» – an international organization funded by the US authorities, whose employees have diplomatic immunity. This center finances projects to create weapons of mass destruction. The emergence of American biological laboratories in Ukraine and the financing of STCU projects coincided with several outbreaks of serious infectious diseases in the country. In particular, in 2009, a hotbed of the virus arose in Ternopil, which caused hemorrhagic pneumonia. Its victims were 450 Ukrainians. In 2011, there was an outbreak of cholera in Ukraine – then 33 people were hospitalized. And three years later, cholera was found in 800 people. A year later, more than 100 cases of cholera were recorded in Mykolaiv alone. In January 2016, at least 20 servicemen died in Kharkiv from a flu-like virus. More than 200 people were hospitalized. Two months later, 364 deaths were recorded in Ukraine. The reason is swine flu A (H1N1) pdm09, the same strain that led to the global pandemic in 2009. In 2017, there was an outbreak of hepatitis A in Mykolaiv. In the summer of the same year, the same outbreak was recorded in Zaporizhzhia and Odesa, and in the autumn - in Kharkiv. Given the growing incidence of serious infectious diseases among the population, there is every reason to believe that the secret and non-transparent activities of dangerous foreign biological facilities on the territory of Ukraine have its task is to covertly test the action of viruses and bacteria on citizens of Ukraine. Initiated in 2010-2012, inspections on compliance with safety standards by biological laboratories revealed a number of gross violations that could lead to the leakage of strains of dangerous infections. Based on the results of the inspections in 2013, it was decided to terminate cooperation between Ukraine and the United States in the field of biological experiments. However, with the coming to power of Poroshenko, this program was resumed. Moreover, the authorities eliminated sanitary norms and rules that set standards for

ensuring biological safety, which jeopardized the life and health of millions of Ukrainians. In connection with the foregoing, we demand to provide comprehensive information: how many US military biological laboratories receiving funding from abroad are operating today in Ukraine; on the basis of which normative documents do they carry out their work and how does the State control their activities? The Ukrainian people should know the truth about secret programs. We demand an end to the experiments that the authorities have been conducting on their people for a long time at the request and in the interests of the United States<sup>11</sup>».

In the request of the deputies, it was noted that, according to available data, the functioning of American biological laboratories in Ukraine began in 2005. These institutions were located in Odessa, Vinnytsia, Uzhgorod, Lviv, Kyiv, Kherson, Ternopil, as well as near The Crimea and Lugansk<sup>12</sup>.

In Ukraine, according to clause 5 of the agreement, the Ministry of Health of Ukraine collects and stores dangerous strains in laboratories funded by the United States. Reports directly to the US Department of Defense, and transfers copies of dangerous strains there for further research.

According to Art. 7. p 2. of the agreement, in Ukraine it is prohibited to disclose information that the Pentagon has identified as «sensitive»<sup>13</sup>.

«They're not there because of remoteness, they're there to get DNA samples from the local population, to create ethnically-targeted diseases as envisioned by the neocon's white paper «rebuilding America's defenses» published in 2000, which also explained why a «new pearl harbor» was needed to mobilize the country to pursue their wet dreams. The elites tend to be clairvoyant that way». Moreover, DTRA has funded a project involving soldiers in Ukraine code-named UP-8: The spread of Crimean-Congo hemorrhagic fever (CCHF) virus and hantaviruses in Ukraine and the potential need for differential diagnosis in patients with suspected leptospirosis. The project started in 2017 and was extended few times until 2020, internal documents show. According to the project's description, blood samples will be collected from 4,400 healthy soldiers in Lviv, Kharkiv, Odesa

<sup>11</sup> Interview of Viktor Medvedchuk to the TV channel «112 Ukraine». Published on: 26 May 2020. [https://zagittya.com.ua/news/intervju/intervju\\_viktora\\_medvedchuka\\_telekanalu\\_112\\_ukraina.html](https://zagittya.com.ua/news/intervju/intervju_viktora_medvedchuka_telekanalu_112_ukraina.html) (date: 11.01.2022).

<sup>12</sup> Knyazev S. On American military biological laboratories in Ukraine // NEWS. 30.01.2022 <https://e-news.su/mnenie-i-analitika/412277-ob-americanskih-voennyh-biolaboratorijah-na-ukraine.html> (date: 01.02.2022). U.S. biolaboratories in Ukraine: Deadly viruses and threat for population // 112UA News Agency. 23 September 2020. <https://112.international/society/us-biolaboratories-in-ukraine-how-dangerous-are-they-for-population-54975.html> (date: 31.12.2021).

<sup>13</sup> Gaytandzhieva D. Documents expose US biological experiments on allied soldiers in Ukraine and Georgia // Dilyana.BG. 2020 January 24. <http://dilyana.bg/documents-expose-us-biological-experiments-on-allied-soldiers-in-ukraine-and-georgia/> (date: 24.01.2022).

US Military Bio-labs in Ukraine, Production of Bio-weapons and «Disease Causing Agents». Uncategorized. May 1, 2020. <https://thoughtcrimeradio.net/2020/05/us-military-bio-labs-in-ukraine-production-of-bio-weapons-and-disease-causing-agents/> (date: 25.01.2022).



**Figure 2 – Biological laboratories on the territory of Ukraine (Secret biological laboratories of the Pentagon near the borders of Russia). The scheme is taken from the site: <https://edaily.com/ru/news/2018/01/23/sekretnye-biolaboratorii-pentagona-u-granic-rossii-rassledovanie> (date: 31.12.2021)**

and Kyiv. 4,000 of these samples will be tested for antibodies against hantaviruses, and 400 of them – for the presence of antibodies against Crimean-Congo hemorrhagic fever (CCHF) virus. The results of the blood testing will not be provided to the study participants. There is no information as to what other procedures will be performed except that «serious incidents, including deaths should be reported within 24 hours. All deaths of study subjects that are suspected or known to be related to the research procedures should be brought to the attention of the bioethics committees in the USA and Ukraine»<sup>14</sup>.

The DoD Defense Threat Reduction Agency (DTRA) has funded at least known 11 biological laboratories in the former Soviet Union Country Ukraine, bordering on Russia (Figure 2).

Among the set of bilateral agreements between the US and Ukraine is the establishment

of the Science and Technology Center in Ukraine (STCU) – an international organization funded mainly by the US government which has been accorded diplomatic status. The STCU officially supports projects of scientists previously involved in the Soviet biological weapons program. Over the past 20 years the STCU has invested over \$285 million in funding and managing some 1,850 projects of scientists who previously worked on the development of weapons of mass destruction<sup>15</sup>. The US personnel in Ukraine work under diplomatic cover<sup>16</sup>.

One of the Pentagon laboratories is located in Kharkiv, where in January 2016 at least 20 Ukrainian soldiers died from Flu-like virus in just two days with 200 more being hospitalized. The Ukrainian government did not report on the dead Ukrainian soldiers in Kharkiv. As of March 2016, 364 deaths have been reported across Ukraine (81.3 % caused

<sup>14</sup> Ibidem.

<sup>15</sup> The Soviet Union was one of the developers of the BTWC and has been a party to this treaty since 1975, i.e. since its entry into force. There is no evidence of a violation of the BTWC by the Soviet Union. Therefore, Ukrainian «scientists», allegedly «previously engaged in the development of weapons of mass destruction», most likely turned out to be ordinary crooks who used the money of American taxpayers together with their American curators. (Note added by the reviewer).

<sup>16</sup> Gaytandzhieva D. The Pentagon Bio-Weapons // South Front. 16.01.2018. <https://southfront.org/pentagon-bio-weapons/> (date: 25.01.2022).

by Swine Flu A (H1N1) pdm09 – the same strain which caused the world pandemic in 2009). According to DPR intelligence information the US bio lab in Kharkiv leaked the deadly virus. A highly suspicious Hepatitis A infection spread rapidly in just a few months across Southeast Ukraine where most of the Pentagon biolabs are located. 37 people have been hospitalized for Hepatitis A in the Ukrainian city of Mykolaiv as of January 2018. Local police have launched an investigation into «infection with human immunodeficiency virus and other incurable diseases». Three years ago, more than 100 people in the same city became infected with cholera. Both diseases are alleged to have spread through contaminated drinking water. In the summer of 2017, 60 people with Hepatitis A were admitted to hospital in the city of Zaporizhzhia, the cause of this outbreak is still unknown. In the Odesa region, 19 children from an orphanage were hospitalized for hepatitis A in June 2017. 29 cases of Hepatitis A were reported in Kharkiv in November 2017. The virus was isolated in contaminated drinking water. Ukraine and Russia were hit by a new highly virulent cholera infection. In 2011 Ukraine was hit by a cholera outbreak. 33 patients were reportedly hospitalized for severe diarrhea. A second outbreak struck the country in 2014 when more than 800 people all across Ukraine were reported to have contracted the disease. In 2015 at least 100 new cases were registered in the city of Mykolaiv alone<sup>17</sup>.

**Armenia.** Armenia currently has a network of 12 biological laboratories created or modernized with the money of the US military department within the framework of the Biological Threat Reduction Program (BTRP), which, in turn, is part of the «Biological Cooperative Participation Program» (CBEP) of the United States. Three of them are located in Yerevan: Center for Disease Control and Prevention, the State Food Safety Service and the Nork Infectious Diseases Clinical Hospital. In Ijevan, Gyumri, Martuni, Sisian, Artashat and Vanadzor, etc., regional laboratories operate on the basis of anti-plague stations. As in other countries, they are only nominally owned by Armenia, but in fact are controlled by the US Security Threat Reduction Agency (DTRA). The American affiliation of these facilities is confirmed by a list of contractors. This, in particular, is CH2M Hill, which received \$ 50 million from DTRA to create laboratories and an information network in Armenia. According to the leader of the coalition of public movements «United Health», an international expert in the field of biological security G. Grigoryan, the national biological security system of Armenia has been

turned into an element of the US biological intelligence system in the region. Even before the American military network of laboratories opened in the country, since the mid-90s, the United States has gained full control over the Armenian epidemiological databases. According to Grigoryan, the country has introduced the Epi info information system developed by the US Center for Disease Control and Prevention (CDC) located in Atlanta, recommended by WHO for the collection and processing of epidemiological data in all countries. And in 2011, the Americans forced the state sanitary-epidemiological and veterinary-sanitary surveillance services to introduce an electronic integrated disease surveillance system (EIDSS) and an electronic pathogenic asset control system (PACS). Although databases and strains of especially dangerous infectious agents should belong to Armenia, the true owners of the laboratories dispose of them at their discretion. In 2015, two plague bacillus genomes from Armenia were obtained by Lugar M. Nikolic, a representative of the Walter Reed Military Research Institute (WRAIR) in the United States and at the same time by Lugar Nikolic, an employee of the Georgian center. In 2016, the medical records of 600 patients of the main infectious diseases hospital in Armenia «Nork» were examined by representatives of the Military Medical Research Institute of Infectious Diseases from Fort Detrick and the Walter Reed Military Research Institute Christian Bautista. They were interested in brucellosis, which, according to a 1977 U.S. Army report, was tested as a biological weapon five times in 1952, twice in 1954, and four times in 1955. As for tularemia, for which the Americans published a study in 2014 entitled «Analysis of tularemia outbreaks in Armenia, 1996-2013», the Pentagon seriously considered options for its use as a bioweapon. A declassified report by the U.S. Army for 1981 states that military experts compared the economic efficiency of three scenarios for a possible biological attack on a large enemy city: 16 simultaneous attacks by infected yellow fever mosquitoes from the ground and air and an aerosol attack with spraying tularemia. Killing 625,000 people, each death would have cost the Pentagon 29 cents. If the number of victims were 10 times less, then the cost of each life would already be \$ 2.86. Quite seriously, we can assume that, in addition to research, American «virologists in uniform» conduct field tests on the territory of Armenia and neighboring countries. As Black & Veatch reported in 2012, within the framework of the DTRA program, it installed equipment for diagnosing infectious diseases in three laboratories of the Ministry of Health of Armenia, capable

<sup>17</sup> Denisov D. Virus under cover. Ukraine as a testing ground for bacteriological research? International Affairs. 20.04.2020. <https://interaffairs.ru/news/show/26061> (date: 11.01.2022).

of confirming outbreaks of anthrax within a few hours. And it is necessary to happen such a «coincidence» that in the Gegharkunik region a few weeks later there was an unprecedented outbreak of this disease in the history of Armenia, covering 52 people. The equipment was checked, it works. After the appearance of American biological laboratories in Armenia, Asian tiger mosquitoes also «got started», which are carriers of tropical fever, dengue fever, Chikungunya and Zika virus. Experiments on them were conducted in the center of Lugar in Georgia. And the mosquitoes flew, as well as the coronavirus-infected bats of the American Professor G. Smith, which were somehow «discovered» in the caves of Kazakhstan during the professor's work in the American CRL in this country<sup>18</sup>.

**Azerbaijan.** Azerbaijan, like Georgia, is a party to a number of international agreements on the non-proliferation of nuclear weapons, the prohibition of nuclear tests, etc. After the collapse of the USSR, many facilities remained on the territory of Azerbaijan that were previously part of the all-Union anti-plague system, which consisted of six institutes, 29 regional and 53 field anti-plague stations. According to a number of researchers, the term «plague» itself in the above-mentioned system was used in a broad sense and referred to infectious diseases that pose the greatest danger, such as anthrax, brucellosis, edematous plague, Congo-Crimean hemorrhoidal fever and tularemia. Against the background of the lack of interest on the part of the new Azerbaijani elite, Washington became interested in this Soviet legacy. There are eight U.S. biological laboratories funded from the Pentagon in Azerbaijan. At first, the activities of these laboratories are reduced to the destruction of the system of sanitary and epidemiological control created in the country, in the future, the biomaterial of citizens in the form of blood serums is collected and work with various strains is carried out. It is important to note that this type of Azerbaijani-American cooperation in Baku is not usually advertised. In addition, an agreement was signed between the United States Department of Defense (DOD) and the Government of the Republic of Azerbaijan «On cooperation in the field of technologies and pathogens related to the development of biological weapons and the

non-dissemination of information in this area». In accordance with this agreement, Baku and Washington began joint work to improve the safety and security of the Central Pathogenic Health Laboratory of Azerbaijan and the Republican Anti-Plague Station in Baku. In September 2005, the American newspaper Chicago Tribune published an interesting article authored by Jeff Zeleny «The United States receives pathogenic microorganisms from the former Soviet republic». The article said that a few days before its release, «more than 60 dangerous and deadly species of bacteria, which are the legacy of the former Soviet Union's large-scale biological weapons program<sup>19</sup>, were transported from Azerbaijan» to the United States. Was one of the steps in the joint struggle of the two countries against the threat of biological terrorism. Samples of bacteria, including species that cause plague and anthrax, were smuggled from Baku to the United States on a military plane as part of a secret mission. Pathogens, according to official information, on Saturday will be delivered to the Dover Air Force Base located in Delaware, the material said. However, according to information on the website of the Nuclear Threat Initiative, within the framework of cooperation, Azerbaijan provided the United States with not 60, but 124 samples of 62 unique species of pathogens of plague, anthrax, cholera and other dangerous diseases. These samples were transported to the Institute of Pathology of the US Armed Forces (Washington), where specialists of the US Department of Defense and Azerbaijan planned to conduct joint research. This deal became possible not without the help of an official visit to Azerbaijan, in early 2008, senator Richard Lugar, an ardent supporter of the placement of American bacteriological laboratories in different countries of the world. During the visit, the senator said that the data obtained as a result of research will be important in «countering the war on terrorism and biological attacks.» Also in 2010, Lugar's assistant paid an unofficial visit to Baku, the purpose of his visit was issues related to the commissioning and further functioning of the bacteriological laboratory - the «Scientific Center for the Study of Infectious Diseases», being built in the Lankaran region of Azerbaijan with American funds with the help of specialists from the United States<sup>20</sup>.

<sup>18</sup> Popova V. American Biological Laboratories in Armenia: Miracles of Multi-Vectorials. Military-political analytics. 23.04.2020. <https://vpoanalytics.com/2020/04/23/amerikanskie-biolaboratorii-v-armenii-chudesna-mnogovektornosti/> (date: 20.01.2022).

Some more facts including the copies of agreements can be found here: U.S. Biological Laboratories in Armenia // Golos Armenii 16.04.2021. <https://www.golosarmenii.am/article/115145/biologicheskie-laboratorii-ssha-v-armenii> (date: 25.01.2022).

<sup>19</sup> Work on the study of pathogenic microorganisms and the identification of foci of dangerous infections in the USSR was carried out within the framework of epidemic surveillance. (**Note added by the reviewer**).

<sup>20</sup> Stepanyan D. Why do Americans need biological laboratories in Armenia, Georgia and Azerbaijan? // Noev Kovcheg. 2019. № 2. <https://noev-kovcheg.ru/mag/2019-02/6466.html> (date: 25.01.2022).

**Georgia.** The Caucasian nation of Georgia, with whom Russia has had poor relations for over a decade following the 2008 war in South Ossetia, has had one of the most active US biolab programs in the post-Soviet space. In 2018, Igor Giorgadze, the country's former minister of state security, asked President Trump to investigate reports that personnel from the Lugar Center biological lab outside Tbilisi had engaged in experiments on people, and that some of these test subjects had died. In a report on the US-funded lab's activities, Giorgadze revealed the high level of bacteriological protection at the facility, as well as equipment which he said was capable of «spraying harmful substances and ammunition with biologically active materials». The former official questioned why a lab supposedly engaged in peaceful research would have a need for such equipment. Washington dismissed Giorgadze allegations as «absurd», and assured that the lab's research was peaceful in nature. However, leaked e-mails between the Lugar Center, the Pentagon biolaboratory in Tbilisi, the US Embassy to Georgia and the Georgian Ministry of Health reveal new information about the \$161 million secretive US Government biological research program in this former Soviet country.

The data allegedly originating from the Ministry of Health of Georgia has been published anonymously on Twitter and on a forum for database leaks – Raidforums<sup>21</sup>:

Among the documents there are internal memos, official letters and detailed information about US government projects at the Lugar Center, funding and foreign business trips.

The Pentagon has planned to turn Georgia into its largest biological research center overseas, combining its military resources with the resources of the US Centers for Disease Control (CDC) in Georgia. The US military biological research projects in Georgia have been funded by the Defense Threat Reduction Agency (DTRA). According to internal data, American and Georgian scientists were working on the following DTRA projects in the Lugar Center<sup>22</sup>:

Here we mention a few of them:

Project 1059: *Zoonotic Infections with Fever and Skin Injuries in Georgia*. The project includes

isolation of new orthopoxviruses in humans, rodents, domestic and wild animals in Georgia.

Project 1060: *Characterization of the Georgian National Center for Disease Control (NCDC) Strain Repository by New Generation Sequencing*. Characterization and genome research on 100 strains from four endemic species: *Y. pestis* (causing the disease plague), *B. anthracis* (anthrax), *Brucella*, and *F. tularensis* (causing the disease tularemia).

Project 1439: *Molecular Virological Research in Georgia*. Identify and characterize Hantavirus and Crimean-Congo hemorrhagic fever virus (CCHFV) strains by molecular methods.

Project 1497: *Molecular Epidemiology and Ecology of Yersinia Species in Georgia and Azerbaijan*. Isolation of different strains of *Yersinia*.

Project 1911: *Rickettsia and Coxiella infection surveillance in Georgia and Azerbaijan*. Valid until 22.09.2022.

In addition to the Lugar Center, the U.S. Department of Defense sponsors a network of more than ten small labs in Georgia. All of them have a second level of biosafety<sup>23</sup>.

*Military Experiments with Tropical Mosquitoes and Ticks in Georgia*. Such species of mosquitoes and fleas (studied in the past under the US Entomological Warfare Program) have also been collected in Georgia and tested at The Lugar Center.

Under the DTRA project «Virus and Other Arboviruses in Georgia» in 2014 the never-before-seen tropical mosquito *Aedes albopictus* was detected for the first time and after decades (60 years) the existence of *Aedes aegypti* mosquito was confirmed in West Georgia.

These tropical mosquitoes *Aedes albopictus* having never been seen before in Georgia, have also been detected in neighboring Russia (Krasnodar) and Turkey, according to data provided by the European Centre for Disease Prevention and Control, their spread is unusual for this part of the world.

*Aedes aegypti* Mosquitoes have been distributed only in Georgia, Southern Russia and Northern Turkey. They were detected for the first time in 2014 after the start of the Pentagon program at The Lugar Center<sup>24</sup>.

In the Lugar Center several coronaviruses were discovered, similar to the epidemic SARS

<sup>21</sup> Gaytandzhieva D. US diplomats involved in trafficking of human blood and pathogens for secret military program // Dilyana. 2018. September 12. <http://dilyana.bg/us-diplomats-involved-in-trafficking-of-human-blood-and-pathogens-for-secret-military-program/> (date: 25.01.2022).

<sup>22</sup> Gaytandzhieva D. New data leak from the Pentagon biolaboratory in Georgia // Dilyana. 2020. September 6, <https://armswatch.com/new-data-leak-from-the-pentagon-biolaboratory-in-georgia/> (date: 25.01.2022).

<sup>23</sup> Biological laboratories in Georgia: Dirty work of the United States near the borders of South Ossetia // South Ossetia. (date 20.05.2021). <https://yandex.ru/turbo/eadaily.com/s/ru/news/2021/05/20/biolaboratorii-v-gruzii-gryaznaya-rabota-ssha-u-granic-yuzhnoy-osetii> (date: 05.01.2022).

<sup>24</sup> The Pentagon's Bio-Weapons Research Program. 2018. April 15. <https://thoughtcrimeradio.net/2018/04/the-pentagons-bio-weapons-research-program/> (date: 25.01.2022).

and MERS coronaviruses, according to the ISTC project manager and Lugar Center virologist Lela Urushadze. These results were published by Urushadze in her dissertation<sup>25</sup>.

In a blood testing of a sample of military soldiers was conducted to estimate the seroprevalence of *F. tularensis* nationally. Of the 500 military soldiers tested, 10 (2%) had antibodies for *F. tularensis* (MAT of 1:128 or higher). The seropositive soldiers were men, the majority of whom were between 30 and 39 years of age. Seven cases had current residences in known endemic areas (i.e. Kakheti, Samtskhe-Javakheti, Kvemo Kartli, Shida Kartli, and Tbilisi). Three were from areas without previously known *F. tularensis* transmission. The data were published in a peer reviewed journal [8]<sup>26</sup>.

**Kazakhstan.** According to publicly available US sources, DTRA has been conducting research in Kazakhstan since at least 2005 and invested \$ 400 million to establish biological laboratories. There are now six biological facilities there, created with Pentagon money as part of the CBEP project, which CH2M and Jacobs are responsible for managing. Many Kazakhstanis suspect that several epidemics in the country were triggered by researchers at these closed facilities. However, nobody so far has managed to provide a confirmation of those fears, and Washington is doing its best to keep its activities a secret.

A study of the work of US biological laboratories in Kazakhstan allows us to talk about the presence of similar incidents. «Nikita Mendkovich proves this, in particular, on the example of the outbreak of brucellosis in Southern Kazakhstan in 2009. It occurred during the implementation of DTRA brucellosis research projects in Kazakhstan (KZ-2) and Uzbekistan (UZ-4). «These events were preceded by a long decline in the incidence of brucellosis in Kazakhstan (2004-2007), and then

there was a sharp increase in the number of foci of brucellosis among domestic animals (2009-2013), recorded by local veterinary services. More recent genetic studies of brucellosis strains in the republic have recorded significant differences between brucellosis samples from the Zhambyl region, where IPBB (the contractor DTRA USA) is deployed, and samples from other regions of Kazakhstan. Among the studied Kazakhstani materials, strains related to the United States and Western Europe were identified. DTRA and IPBB specialists do not give any explanations for these discoveries. The KZ-2 research team included Mikeljon Nikolic, a researcher at the U.S. Armed Forces Walter Reed Institute, Jason Blackburn, head of the Laboratory of Spatial Epidemiology (University of Florida), funded by DTRA, and Philip Elzer, a biologist and longtime participant in NATO programs. That is, a group of American military specialists in biological warfare was associated with an outbreak of brucellosis in Kazakhstan. «Another example is the Congo-Crimean hemorrhagic fever in the year 2014. N. Mendkovich said: «A year earlier, in 2013, DTRA launched the KZ-29 project in Kazakhstan, aimed at studying the spread of CCHF, and it was ticks. The research was led by Allen Richards, now Navy Lieutenant Commander, and Navy Lt. Christina Farris, representing the U.S. Navy Medical Center (Maryland). The team also included Kenneth Yeh of MRIGlobal, a contractor for the U.S. Department of Defense, and Roger Hewson, a UK army research leader based in Salisbury, home to an army microbiology centre. Again, a familiar picture. That is, we are talking again about the developments of military biologists»<sup>27</sup>.

During the Kazakhstan riots of January 2022, information was leaked to the press that the main purpose of the work in the recently commissioned American biological laboratory of the BSL-3

Gaytandzhieva D. WMD America: Inside The Pentagon's Global Bioweapons Industry // GeoEngineering watch. 2018. February 9. <https://www.geoengineeringwatch.org/wmd-america-inside-the-pentagons-global-bioweapons-industry/> (date: 25.01.2022).

ზონიზირებული პათოგენები და მათი მოლეკულურ ეპიდემიოლოგიური დახასიათება საქართველოს ხელფრთიანებში.

<http://eprints.iliauni.edu.ge/8640/1/%E1%83%9A%E1%83%94%E1%83%9A%E1%83%90%20%E1%83%A3%E1%83%A0%E1%83%A3%E1%83%A8%E1%83%90%E1%83%AB%E1%83%94.pdf>, Abstract, page 5-6, in English) submitted to the Ilia State University in 2018. (date: 25.01.2022)

<sup>25</sup> Gaytandzhieva D. Project G-2101: Pentagon biolab discovered MERS and SARS-like coronaviruses in bats // Arms Watch. 2020. April 30. <https://armswatch.com/project-g-2101-pentagon-biolab-discovered-mers-and-sars-like-coronaviruses-in-bats/> (date: 25.01.2022).

<sup>26</sup> It is interesting to see the organizations and the authors who participated on this work: Department of Molecular Epidemiology, National Centre for Disease Control and Public Health, Tbilisi, Georgia; **US Army Medical Research Unit Georgia, Tbilisi, Georgia**; Department of Epidemiology, Ivane Javakishvili Tbilisi State University, Tbilisi, Georgia; Infectious Diseases, AIDS and Clinical Immunology Research Centre, Tbilisi, Georgia; Institute for Health and the Environment, University at Albany, State University of New York, NY, USA. What is this if not an epidemiological reconnaissance of the future theater of biological operations? (Note added by the reviewer).

<sup>27</sup> Platov V. What Viruses are Being Studied by US Military Bio-Laboratories in Kazakhstan? // New Eastern Outlook. (date 06.08.2021). <https://journal-neo.org/2021/08/06/what-viruses-are-being-studied-by-u-s-military-bio-laboratories-in-kazakhstan/>

group in Almaty is to restore the genome of the plague causative agent that caused the Black Death pandemic in the years 1346-1352<sup>28</sup>. This strongly changes the proclaimed aim of the American military laboratories in the territories of the former republics of the USSR. Now their activities cannot be explained even by the goals of epidemiological reconnaissance of the future theater of biological operations. The plague bacteria that caused the Black Death pandemic was considered as «extinct» [9, 10]. Arousing in 1347 in the central regions of Asia, the plague pandemic spread to Europe, and caused mass death of its population. Within a few years, the European population had declined by 60% [11].

**Kyrgyzstan.** There are no informations about the existing biological laboratories of the Pentagon in Kyrgyzstan in the public domain<sup>29</sup>.

**Tajikistan.** In the 2010s, the US and other Western countries allocated funding to another Russian ally in Central Asia – Tajikistan, with Foundation Merieux, a French charitable foundation whose formal mission includes the strengthening of local health capabilities and reducing the impact of infectious diseases, establishing the Gastroenterological Institute in Dushanbe in 2013 with UN and USAID assistance. In 2019, another lab – the Republican Center for the Fight Against Tuberculosis, was opened in Tajikistan, this time sponsored directly by USAID and the Pentagon. As elsewhere, the lab allows both local biologists and their foreign counterparts to study local diseases, including tuberculosis, malaria, hepatitis and cholera. That same year, another US-funded laboratory was opened in Isfara in northern Tajikistan. Little information was available regarding its work, except that it was also funded by the US<sup>30</sup>.

**Turkmenistan.** On March 14, 2019, the Union of Industrialists and Entrepreneurs of Turkmenistan (UIET) and HilStandart Corporation opened the first private microbiological laboratory in the country with the assistance of USAID. It was officially described as a food safety laboratory. The

number of laboratory personnel and the Americans' degree of control over it are unknown<sup>31</sup>.

**Uzbekistan.** On April 21st 2011, the US chargé d'affaires in Uzbekistan, Duane Butcher, opened laboratories in Andijan and Fergana, built with financial support from the Defence Threat Reduction Agency by Bechtel National Incorporated, a large engineering and construction company based in San Francisco. The cost of the project is about \$1.3 million. The official purpose of the laboratory is to «help identify particularly dangerous pathogenic microorganisms and prevent epidemics». Duane Butcher noted that this is «only one of many projects that the United States and Uzbekistan are currently working on». It was about reconstruction of 10 regional diagnostic laboratories and 17 units of epidemiological support<sup>32</sup>.

Then, with the help of the Americans, there were stations in Bukhara, Qarshi, Samarkand, Nukus; some have US citizens among their staff. In the summer of 2015, the Defence Threat Reduction Agency (DTRA) and the American Centers for Disease Control and Prevention held a seminar in Tashkent for doctors, epidemiologists, and laboratory specialists of the Ministry of Health of Uzbekistan for the exchange of experience in decrypting laboratory analyses of particularly dangerous pathogens. The large-scale modernisation of 157 sanitary and hygienic laboratories throughout the country with a total cost of \$17.4 million was planned. The largest laboratory built in Uzbekistan by the DTRA and Bechtel National Incorporated was the station in Urgench (Khorezm Regional Diagnostic Laboratory), opened on October 18<sup>th</sup> 2016, immediately after Karimov's death. At the opening of the laboratory, US Ambassador Pamela Spratlen announced a full understanding between the DTRA and the government of Uzbekistan.

According to the American Ambassador, the laboratory in Urgench «will allow for the first time to obtain experimental data on the prevalence of antimicrobial resistance», which «will improve the

<sup>28</sup> The uprising in Kazakhstan revolves around uranium and the recently opened American biological laboratory of the BSL-3 group in Alma-Ata // Aeronet.cz/news (date: 07.01.2022). <https://aeronet.cz/news/povstani-v-kazachstanu-se-toci-okolo-uranu-a-vedavno-zprovoznene-americke-biologicke-laboratore-skupiny-bsl-3-v-alma-ate-kde-americka-armada-spolu-s-vedci-z-fort-detrick-zahajila-vyzkum-vzorku/> (date: 08.01.2022).

<sup>29</sup> The National Biological Laboratory (BSL-3) in the green zone of Bishkek (the Botanical Garden of the Academy of Sciences) was closed in 2012 due to protests by citizens. Brazhnikova Y. Net biolaboratorii Pentagona v stranach CIS // Vector-Eurasia. June 18, 2016. <https://vector-eurasia.org/internal/project-analyst/47/63/> (date: 01.01.2022).

<sup>30</sup> Webster T. Biolabs Ringing Russia's Borders: What's the US Really Doing at These Facilities? // Hiram's 1555 Blog. 2020. May 28. <https://hiram1555.com/2020/05/30/biolabs-ringing-russias-borders-whats-the-us-really-doing-at-these-facilities/> (date: 20.01.2022).

<sup>31</sup> Uvarov A. American Biolabs in the Southern Underbelly of Russia // Сталкер Zone. 2020. May 22. <https://www.stalkerzone.org/american-biolabs-in-the-southern-underbelly-of-russia/> (date: 22.01.2022).

<sup>32</sup> Kurmanov A. Uzbekistan is entangled in a network of US military-biological laboratories // Politnavigator. 03.06.2021. <https://www.politnavigator.net/uzbekistan-oputan-setyu-voenno-biologicheskikh-laboratorijj-ssha.html> (date: 05.01.2022).

quality of life and health of citizens of Uzbekistan and other countries of the region».

However, there was no «improvement in the quality of life and health». On the contrary, in Uzbekistan, unexplained outbreaks of measles (500 people in the Samarkand region) and smallpox were recorded (this disease was covered up with a diagnosis of «allergic dermatitis»). In Tashkent, there is a theory that the exertion of strong pressure on Gulnara Karimova, the daughter of the former President of Uzbekistan, is related, among other things, to the fact that she paid too much attention to the origin of incomprehensible diseases.

Now the Americans continue their activities in Uzbekistan. In April 2017, a Center for Combating Antimicrobial Resistance was opened at the Research Institute of Epidemiology, Microbiology, and Infectious Diseases of Uzbekistan. Uzbekistan's new leadership, which maintains relations with Washington, is silent about laboratories. Only once, in October 2018, was the silence broken: after the statement of the chief of the Nuclear, Biological and Chemical Protection Troops of the Russian Armed Forces Igor Kirillov about the creation of a «laboratory belt» around Russia, the Ministry of Defence of Uzbekistan said that they «did not hear» about the reconstruction of Pentagon-controlled laboratories in the Republic<sup>33</sup>.

\*\*\*

1. The true goals of the actions of American biological laboratories that have been «installed» in the CIS states around Russia and Belarus are unknown. However, they are surely not related to the Biological Threat Prevention Program (BTRP). It should be noted that according to the CTR website, «the purpose of the CTR Program is to secure and dismantle weapons of mass destruction and their associated infrastructure in former Soviet Union states». It is an «experimental fact» that the «dismantling of weapons of mass destruction and their associated infrastructure in former Soviet Union states» now takes more than 30 years. This can be recognized as a full failure of the program. Or, worse, it can be recognized as a «dual activity» program which under the cover of long, long «dismantling of weapons of mass destruction» creates newer, more effective biological weapons based on local «evil» pathogens with «interesting» genofonds.

<sup>33</sup> Ibidem.

<sup>34</sup> Article VI of Biological and Toxin Weapons Convention (BTWC): (1) Any State Party to this Convention which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Convention may lodge a complaint with the Security Council of the United Nations. Such a complaint should include all possible evidence confirming its validity, as well as a request for its consideration by the Security Council.

(2) Each State Party to this Convention undertakes to co-operate in carrying out any investigation which the Security Council may initiate, in accordance with the provisions of the Charter of the United Nations, on the basis of the complaint received by the Council. The Security Council shall inform the States Parties to the Convention of the results of the investigation.

2. There are strong reasons to assume that the activities of these laboratories are related to the epidemic reconnaissance of theaters of military operations in the territories of Russia and Belarus and to the development of new means of conducting biological warfare (as mentioned above).

3. Data on outbreaks of diseases in humans and animals, the emergence of new species of animals (mosquitoes, flies, bats ect.), agricultural disasters indicate an extremely low level of biosafety in these laboratories which poses a threat not only to the countries where they are located, but also to neighboring countries, including Russia and Belarus. On the other hand, this can be a «cover story» for the biological warfare experiments performed on the territories where these laboratories are located. It is easy to convince the microbiological and medical community that the observed outbreaks are associated with low level laboratory safety in these facilities.

4. Collections of pathogens collected during the Soviet era and transferred to American biological laboratories pose a great threat to the countries in which they were collected, since in the event of a biological attack it will be impossible to prove the artificial nature of the outbreak of this infection.

5. Databases of the human genomes of the population of countries which were formerly part of the USSR will make it possible to create weapons that work according to the new principle – the selective defeat of individual ethnic groups.

6. The existence of these laboratories around Russia and Belarus has clearly been prolonged and therefore it is advisable for Russia to use Art. 6 of the BTWC<sup>34</sup> and the UN experience as it has been used in eliminating Iraq's chemical weapons [12].

### Post scriptum

One recent example, although not from this area, comes from Slovakia. In 2020, up to 4 million people were re-tested for the presence of SARS CoV-19. This unprecedented military operation (carried out under enormous government pressure) in post-war Europe completely violated the Nuremberg Codex. «Results» (of no medical or scientific significance) have been published [13]. It should be noted that the authors of the article are lying about informed consent. It seems that the

DNA of almost the entire population of Slovakia has been collected and analyzed. This idea is supported by another DNA collection in Poland, which should begin in early year 2022<sup>35</sup>.

During the search the author met the name of the Bulgarian investigative journalist Dilyana Gaytandzhieva who wrote a detailed article about the US bio-weapons research that spans across the world in 25 different countries. These bio-laboratories are funded by the Defense Threat Reduction Agency (DTRA) under a \$2.1 billion military program called Cooperative Biological Engagement Program (CBEP), and are located in countries such as Ukraine, Kazakhstan, Uzbekistan, Georgia, Azerbaijan, Jordan, Iraq, Afghanistan, Pakistan, Laos, Cambodia, the Philippines, etc. In 2019 the journalist traveled to Brussels and attended the European Parliament in order to confront Robert Kadlec, Assistant Secretary at the US Department of Health, regarding the number of classified bio-weapons research labs scattered through Eastern Europe and Central Asia. Their transcribed conversation follows:

**Gaytandzhieva:** *Why has the Pentagon been operating military bio-laboratories in 25 countries, bordering on the US rivals Russia, China and Iran, and why has the number of deadly outbreaks, in all those countries, increased dramatically since the start of the military program of the United States in these countries?*

**Kadlec:** *I will say unequivocally and undeniably, the US does not have a military biological weapons program. Period. End of statement. Number two [interrupts Gaytandzhieva], we have been working, and I do know from the Department of Defense, they have been working with partners in parts the World, to ensure that those laboratories, and we trained them to do the diagnostic tests on these diseases, to ensure that they can manage them and also safely secure those facilities, so they're not accessible by terrorists, or by criminals, who would do ill with them.*

**Gaytandzhieva:** *Why are all these projects classified information? All these bio-laboratories of the Pentagon in 25 countries across the world? Why are they classified information?*

**Kadlec:** *They're not classified, they're openly available to anyone who wants to look at them.*

**Gaytandzhieva:** *No, I tried it. No, this is not true. They are classified information.*

**Vautmans:** *Ok, ok, I think I will not give you more time. We will try to answer your questions, but that's not the place here. Case closed, thank you very much [kisses with Kadlec]<sup>36</sup>.*

The author declares that all the sources used here are freely available from public sources. The ideas presented here are his own and do not necessarily present the official views. Some publicly available sources may not present current status. The author apologizes for any possible misinformation coming from these sources.

<sup>35</sup> DNA test to be added to Covid screening // RT 15 Jan, 2022 <https://www.rt.com/news/546148-genetic-test-severe-covid/> (date: 25.01.2022).

<sup>36</sup> Vuković F. Bulgarian journalist confronts US official over secret biolabs // Arms Watch. 2019. June 14. <https://armswatch.com/bulgarian-journalist-confronts-us-official-over-secret-biolabs/> (date: 25.01.2022).

#### **Author Contribution/Вклад автора**

Elaboration of the concept of the paper; collection, analysis, and systematization of scientific literature; writing and edition of paper/ Разработка концепции статьи; сбор, анализ и систематизация научной литературы; написание статьи.

#### **Conflict of interest statement**

I am declaring that I prepared the article from sources freely available on the Internet and free available publications, figures, and other possible legal sources. I, as a sole author declare that the research was conducted in the absence of any commercial or financial relationship that could be construed as a potential conflict of interest.

#### **Peer review information**

The article has been peer reviewed by two experts in the respective field. Peer reviews are available from the Editorial Board and from Russian Science Citation Index database.

**Funding.** There are no funding sources to declare

#### **References:**

1. Reeves R.G., Voeneky S., Caetano-Anollés D., Beck F., Boëte C. Agricultural research, or a new bioweapon system? // *Science*. 2018. V. 362(6410). P. 35–37. <https://doi.org/10.1126/science.aat7664>
2. Koch L., Lopes A.A., Maiguy A., Guillier S., Guillier L., Tournier J.N., Biot F. Natural outbreaks

and bioterrorism: How to deal with the two sides of the same coin? // J. Glob. Health. 2020 (2):020317. <https://doi.org/10.7189/jogh.10.020317>

3. Taleb N.N. The Black Swan: The Impact of the Highly Improbable. Random House. N.Y. 2007.

4. Lugar R. Cooperative Threat Reduction and Nuclear Security // Georgetown Journal of International Affairs. 2009. № 10. P. 183–189.

5. Chaban A. Exit of Russia from the ISTC: divorce or the way to equality? // Safety index. 2014. № 1. P. 123–134.

6. Petrov S.V., Supotnitskiy M.V. Protocol to the Convention on the Prohibition of Bacteriological (Biological) Weapons – History, Main Provisions, Significance and Reasons for Not Signing // Journal of NBC Protection Corps. 2021. V. 5. № 1. P. 4–21. <https://doi.org/10.35825/2587-5728-2021-5-1-4-21>

7. Malakauskas A., Schulz K., Kukanauskaitė I. et al. African Swine Fever Outbreaks in Lithuanian Domestic Pigs in 2019 // Animals (Basel). 2022 Jan; V. 12(1): 115. <https://doi.org/10.3390/ani12010115>

8. Akhvediani N., Burjanadze I., Baliashvili I. et al. Tularemia transmission to humans: a multifaceted surveillance approach // Epidemiol. Infect. 2018. V. 146(16). P. 2139–2145. <https://doi.org/10.1017/S0950268818002492>

9. Bos K., Herbig A., Sahl J. et al. Eighteenth century *Yersinia pestis* genomes reveal the long-term persistence of an historical plague focus // eLife. 2016. V. 5: e12994. <https://doi.org/10.7554/eLife.12994>

10. Spyrou M.A., Keller M., Tukhbatova R. et al. Phylogeography of the second plague pandemic revealed through analysis of historical *Yersinia pestis* genomes // Nat. Commun. 2019. V. 10. P. 4470. <https://doi.org/10.1038/s41467-019-12154-0>

11. Benedictow, O.J. The Black Death, 1346–1353: The Complete History. Boydell and Brewer, Woodbridge, UK, and Rochester, N.Y., 2004. <https://doi.org/10.1017/S002572730001019X>

12. Supotnitskiy M.V., Shilo N.I., Kovtun V.A. Chemical Weapons in the Iran-Iraq War (1980–1988). 4. The Destruction of Iraqi Chemical Weapons // Journal of NBC Protection Corps. 2020. V. 4. No 2. P. 131–159. <https://doi.org/10.35825/2587-5728-2020-4-2-131-159>

13. Pavelka M., Van-Zandvoort K., Abbott S. et al. The effectiveness of population-wide, rapid antigen test based screening in reducing SARS-CoV-2 infection prevalence in Slovakia // medRxiv preprint doi: <https://doi.org/10.1101/2020.12.02.20240648>; this version posted December 4, 2020.

#### Author

Centre of Experimental Medicine, SAS, Dubravská cesta 9, 841 04 Bratislava, Slovakia Faculty of Management Comenius University, Odbojárov 10, 820 05 Bratislava, Slovakia.

Ján Lakota. MD, PhD

Contact person: Ján Lakota; [jan.lakota@savba.sk](mailto:jan.lakota@savba.sk)

## Военно-биологические лаборатории США в государствах бывшего СССР

Ян Лакота

Центр экспериментальной медицины, SAS, Dubravská cesta 9, 841 04 Братислава, Словакия Факультет менеджмента Коменский университет, Odbojárov 10, 820 05 Братислава, Словакия

Поступила 30.01.2022 г. Принята к публикации 20.03.2022 г.

Распад Советского Союза в 1991 г. привел к созданию 15 слабых государств, имеющих на своей территории остатки оборонительной инфраструктуры могучей сверхдержавы – СССР. Соединенные Штаты и их союзники по НАТО воспользовались этой ситуацией для получения научных и технических знаний, которые ранее были им неизвестны и в рамках Программы совместного уменьшения угрозы (CTR) начали демонтаж объектов, имеющих отношение к оружию массового поражения в бывших республиках Советского Союза. Под предлогом снижения риска биотерроризма и предотвращения распространения технологий и знаний, позволяющих создать биологическое оружие (БО), США окружили Россию и Белоруссию сетью биологических лабораторий, подчиненных Министерству обороны США. Цель работы – показать реальную карти-

ну деятельности американских военно-биологических лабораторий в государствах бывшего СССР. В работе использовались только открытые источники. Установлено наличие не менее 50 американских военных биологических лабораторий по периметру России и Белоруссии: в Армении – 12; в Азербайджане – не менее 8; на Украине не менее – 11; в Молдавии – 1; в Грузии – 12; в Казахстане – 6; в Таджикистане – не менее 4 крупных и неизвестное количество небольших лабораторий; в Узбекистане – не менее 8. Об их двойном назначении говорит то, что их деятельность, вопреки ст. 10 Конвенции о запрещении разработки, производства и накопления запасов бактериологического (биологического) и токсинного оружия и об их уничтожении (Конвенция), держится в секрете. В этих лабораториях ведутся работы с опасными коронавирусами, потенциальными агентами биологического оружия (чума, туляремия, геморрагические лихорадки, бруцеллез др.) и, что весьма тревожно – проводятся эксперименты по восстановлению генома возбудителя чумы, вызвавшего в XIV веке пандемию «черной смерти» (Казахстан, Алма-Ата). Возбудители опасных патогенов – потенциальных агентов БО – нарабатываются в количествах, превышающих необходимые для разработки защитных препаратов, и передаются в другие страны, что грубо нарушает ст. 1 и 6 Конвенции. Кроме того, данные о «странных» вспышках заболеваний людей и животных, появлении ранее не встречавшихся видов животных (комары, мухи, летучие мыши и др.), сельскохозяйственных катастрофах вокруг этих лабораторий, свидетельствуют о несоблюдении американскими военными исследователями дорогостоящих мероприятий специальной техники безопасности, необходимой при работе с опасными патогенами. Последнее обстоятельство представляет прямую опасность не только для стран, которые предоставили для них свою территорию, но и для России, Белоруссии и стран Восточной Европы. Проблема американских биологических лабораторий вокруг России и Белоруссии уже давно требует радикального решения.

**Ключевые слова:** бактериологические лаборатории США; биологическое оружие; бруцеллез; геморрагическая лихорадка; Закон Нанна-Лугара; НАТО; Программа совместного уменьшения угроз; туляремия; чума.

**Библиографическое описание:** Лакота Ян. Военно-биологические лаборатории США в государствах бывшего СССР // Вестник войск РХБ защиты. 2022. Т. 6. № 1. Р. 28–43. <https://doi.org/10.35825/2587-5728-2022-6-1-28-43>

#### **Информация о конфликте интересов**

Я заявляю, что подготовил статью из источников, находящихся в свободном доступе в Интернете, а также свободно доступных публикаций, рисунков и других возможных легальных источников. Я, как единственный автор, заявляю, что исследование проводилось при отсутствии каких-либо коммерческих или финансовых отношений, которые могли бы быть истолкованы как потенциальный конфликт интересов.

#### **Сведения о рецензировании**

Статья была рецензирована двумя экспертами в соответствующей области. Рецензии доступны в редакции и в базе данных Российского индекса научного цитирования.

**Финансирование.** Источников финансирования для декларирования нет.

#### **Список источников**

Стр. 41–42.

#### **Об авторе**

Центр экспериментальной медицины, SAS, Dubravská cesta 9, 841 04 Братислава, Словакия Факультет менеджмента Коменский университет, Odbojárov 10, 820 05 Братислава, Словакия.

Ян Лакота, MD, PhD

**Контактное лицо:** Ян Лакота; [jan.lakota@savba.sk](mailto:jan.lakota@savba.sk)