Confronting the Threat of Ethnic Bioweapons

by

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on

New Eastern Outlook



The United States Air Force's 59th Medical Wing's molecular biology branch recently was revealed to have been collecting specifically Russian RNA and synovial (connective) tissue samples, prompting fears in Russia of a possible US directed ethnic-specific bioweapons program.

TeleSUR's article, <u>"Ethnic Bomb Feared as US Air Force Confirms Collection of Russian DNA"</u>, would report:

Russia has raised its concerns over attempts by the U.S. military to collect DNA samples from Russian nationals, noting the potential use of such biological samples for the purpose of creating new genetic warfare weaponry.

The U.S. Air Force has sought to calm the Kremlin's concerns, noting that the samples would only be used for so-called "research" purposes rather than for bioterrorism.

Addressing Russian reports, U.S. Air Education and Training Command spokesperson Captain

Beau Downey said that his center randomly selected the Russian people as a source of genetic material in its ongoing research of the musculoskeletal system.

The report would also state that:

However, the usage of Russian tissue samples in the USAF study fed the long-brewing suspicion that the Pentagon is continuing in its hopes to develop an alleged "biological weapon" targeting specifically Russians.

Russian President Vladimir Putin would be quoted as stating:

Do you know that biological material is being collected all over the country, from different ethnic groups and people living in different geographical regions of the Russian Federation? The question is – why is it being done? It's being done purposefully and professionally.

And while the US military attempted to brush off the notion that any sort of ethnic-specific bioweapon was being researched, the notion of such a weapon is not far fetched at all.

US policy papers have included them in America's overall long-term geopolitical and military planning for nearly two decades, and the US Air Force itself has produced papers regarding the various combinations such weapons could manifest themselves as.

There is also the disturbing history of Western-aligned nations having pursued ethnic-specific bioweapons in the past, including the Apartheid regime in South Africa which sought to use its national vaccination program as cover to covertly sterilize its black population.

US Policy Papers Have Discussed Ethnic-Specific Bioweapons

In the Neo-Conservative Project for a New American Century's (PNAC) 2000 report titled, <u>"Rebuilding America's Defenses" (.pdf)</u> it states (emphasis added):

The proliferation of ballistic and cruise missiles and long-range unmanned aerial vehicles (UAVs) will make it much easier to project military power around the globe. Munitions themselves will become increasingly accurate, while new methods of attack – electronic, "non-lethal," **biological** – will be more widely available. (p.71 of .pdf)

It also stated:

Although it may take several decade for the process of transformation to unfold, in time, the art of warfare on air, land, and sea will be vastly different than it is today, **and "combat"** likely will take place in new dimensions: in space, "cyber-space", and perhaps the world of microbes. (p.72 of .pdf)

And finally:

And advanced forms of biological warfare that can "target" specific genotypes may transform biological warfare from the realm of terror to a politically useful tool. (p.72 of .pdf)

More recently - in 2010 - the US Air Force in a counterproliferation paper titled, "Biotechnology: Genetically Engineered Pathogens"; (PDF), would list multiple ways such weapons could be deployed (emphasis added):

The JASON group, composed of academic scientists, served as technical advisers to the U. S. government. Their study generated six broad classes of genetically engineered pathogens that could pose serious threats to society. These include but are not limited to binary biological weapons, designer genes, gene therapy as a weapon, stealth viruses, host-swapping diseases, and designer diseases.

The paper discusses the possibility of a "disease that could wipe out the whole population or a certain ethnic group." While the paper claims its purpose is to study such weapons as a means of developing defenses against them, America's history as a global military aggressor and the sole nation on Earth to have ever wielded nuclear weapons against another nation-state suggests a high likelihood that if such weapons can be produced, the US has already stockpiled them - if not already deployed them.

South Africa's Project Coast Then and Biotech Now

The notion of the West using such weapons already has an alarming precedent. Regarding South Africa's Apartheid regime - the United Nations' report titled <u>Project Coast: Apartheid's Chemical and Biological Warfare Programme</u> would explain (emphasis added):

There was some interaction between Roodeplaat Research Laboratories (RRL) and Delta G [biological and chemical weapon laboratories respectively], with Delta G taking on some of RRL's biochemistry projects and RRL doing animal testing of some Delta G products. One example of this interaction involved anti-fertility work. According to documents from RRL [Roodeplaat Research Laboratories], the facility had a number of registered projects aimed at developing an anti-fertility vaccine. This was a personal project of the first managing director of RRL, Dr Daniel Goosen. Goosen, who had done research into embryo transplants, told the TRC that he and Basson had discussed the possibility of developing an anti-fertility vaccine which could be selectively administered—without the knowledge of the recipient. The intention, he said, was to administer it to black South African women without their knowledge.

At the time, the technology appears not to have been sufficiently mature enough to realize the Apartheid regime's ambitions. However, the technology not only exists today, there are examples of it being used to spectacular effect - so far for good - but could just as easily be used for bad.

The above mentioned US Air Force paper would go into detail regarding each weapon it listed, including one called gene therapy:

Gene therapy might just be the silver bullet for the treatment of human genetic diseases. This process involves replacing a bad gene with a good gene to normalize the condition of the recipient. Transfer of the "healthy" gene requires a vector to reach its target. Vectors commonly used are "viruses that have been genetically altered to carry normal human DNA" such as "retroviruses, adenoviruses, adeno-associated viruses, and herpes simplex viruses."

Gene therapy has already been used during clinical trials to permanently <u>cure everything from blood cancers to rare genetic disorders</u>. The New York Times, in an article titled, "<u>Gene Therapy Creates Replacement Skin to Save a Dying Boy</u>," would report on one of the latest breakthroughs using the technology, stating:

Doctors in Europe used gene therapy to grow sheets of healthy skin that saved the life of a boy with a genetic disease that had destroyed most of his skin, the team reported on Wednesday in the journal Nature. This was not the first use of the treatment, which adds gene therapy to a technique developed to grow skin grafts for burn victims. But it was by far the most body surface ever covered in a patient with a genetic disorder: nine square feet.

One could imagine a malicious weapon used in reverse to knock out the genes that maintain healthy skin, causing a victim's skin to blister and fall off.

In utilizing gene therapy as a weapon, the US Air Force report would note:

Gene therapy is expected to gain in popularity. It will continue to be improved upon and could unquestionably be chosen as a bioweapon. The rapid growth in biotechnology could trigger more opportunities to find new ways to fight diseases or create new ones. Nations

who are equipped to handle biotechnology are likely to consider gene therapy a viable bioweapon. Groups or individuals without the resources or funding will find it difficult to produce this bioweapon.

Regarding "stealth viruses," a variation of the weaponized gene therapy technique, the report states:

The basic concept of this potential bioweapon is to "produce a tightly regulated, cryptic viral infection that can enter and spread in human cells using vectors" (similar to the gene therapy) and then stay dormant for a period of time until triggered by an internal or external signal. The signal then could stimulate the virus to cause severe damage to the system. Stealth viruses could also be tailored to secretly infect a targeted population for an extended period using the threat of activation to blackmail the target.

With gene therapies already approved for sale in the European Union and the United States, and with more on the way, it is not beyond the realm of possibility that covert, weaponized gene therapies are also either already developed and waiting, or already deployed as "stealth viruses."

Developing and Deploying

The US maintains a global network of military medical laboratories and research centers.

In addition to the 59th Medical Wing involved in collecting Russian genetic material, the US covers the entire Southeast Asian region from Bangkok, Thailand with its Armed Forces Research Institute of Medical Sciences (AFIRMS).

While it publicly claims it exists to, "to conduct state of the art medical research and disease surveillance to develop and evaluate medical products, vaccines, and diagnostics to protect DOD personnel from infectious disease threats," its personnel, equipment, and research could easily be used for dual purposes in creating any of the above stated, so-far "theoretical" ethnic-specific bioweapons.

The US Embassy in Thailand website states that AFIRMS is the largest of a global network of military medical laboratories, claiming:

AFRIMS is the largest of a global network of US Defense Department Overseas Medical Research Laboratories—with sister laboratories in Peru, Kenya, Egypt, and the Republics of Georgia and Singapore. USAMD-AFRIMS has nearly 460 staff members (predominantly Thai and US) and an annual research budget of approximately \$30-35 million.

With labs in South America, Europe, Africa, and Asia - and through the use of subcontractors - the US military has access to a variety of genetic materials and facilities to conduct research and develop all of the weapons its own policy papers have described.

Through US State Department-funded programs, the US could easily create "vaccine" campaigns and "clinics" to deliver the above described bioweapons in a variety of ways.

Fighting in the Dark and Shedding Some Light

The US Air Force's paper would also point out:

Biological warfare attacks may resemble a natural disease outbreak phenomenon and it would be very difficult to trace back to the source, thereby discounting the perpetrator's actions.

And indeed, nations without the ability to independently sequence, detect, and react to ethnicspecific genetic bioweapons could already have been targeted, or could be targeted at any moment without any means of even knowing, let alone reacting. On the other hand, nations with not only a well-developed biotech industry, but also with military labs focused on both detecting and launching biological warfare with such weapons - it would be like fighting a war against a blindfolded enemy.

To remove the blindfold, governments and military institutions around the world, as well as communities and local institutions, would need to develop and have access to a quick and efficient means to sequence DNA, spot abnormalities, and develop possible corrective gene therapies to repair or "patch" malicious weaponized DNA introduced into a population.

Biological warfare surveillance would need to be done not only across a nation's population, but also across its food and water supply as well as its livestock, wildlife, and insect populations. Genetically modified crops have been designed to target and turn off genes in insects and could just as easily be used to target human genes.

In Science Daily's article, "Crops that kill pests by shutting off their genes", it states:

Plants are among many eukaryotes that can "turn off" one or more of their genes by using a process called RNA interference to block protein translation. Researchers are now weaponizing this by engineering crops to produce specific RNA fragments that, upon ingestion by insects, initiate RNA interference to shut down a target gene essential for life or reproduction, killing or sterilizing the insects.

Studies are still ongoing to determine what harm genetically modified organisms (GMOs) - in their current state - are doing to human health. Spotting and reacting to subtle, weaponized GMOs will be even harder.

The use of genetically engineered mosquitoes to deliver "vaccines" presents another possible vector for weaponized biotech. The increasingly "global" nature of many vaccination programs is also a looming danger - particularly since these programs are directed by primarily Western powers - many of whom protected, cooperated with, and even aided and abetted the South African Apartheid regime, including with its various weapons programs.

Biotech is not merely a matter of economics. It is a matter of national security. Allowing foreign corporations representing compromised or nebulous foreign interests to produce vaccines for human or veterinary uses or to alter the genomes of a nation's agricultural crops for whatever perceived benefits cannot outweigh the possible and actualized threats.

In a world where warfare extends into cyber and genetic space, nations that lack independent human healthcare systems capable of producing their own vaccines or managing their own biodiversity find themselves as defenseless as nations without armies, navies, or air forces. However impressive a nation's conventional military capabilities are, lacking proper planning and defenses regarding this new and expanding biotech threat mitigates all possible advantages and maximizes this fatal weakness.

If genetics is a form of living information, then concepts familiar to IT security experts may prove useful in explaining how to safeguard against malicious "code" introduced into our living systems. The ability to "scan" our DNA and spot malicious code, to remove or patch it, and to develop safeguards against it, including "backing up" individual genomes biologically and digitally will not entirely prevent biological weapons from creating damage, but will mitigate their impact - transforming a possible extermination of an entire ethnicity or race to a containable, relatively minor outbreak.

Unlike nuclear weapons, research and development of these biotech tools is accessible to virtually any national government and even to many private institutions. Integrating biotech into a nation's national security planning and implementation is no longer optional or speculative. If the tools to manipulate and target genes for good already exist, then the tools to abuse them also exist.