BIONOIA

Bionoia is a six part series on biological warfare written by Mark Sanborne and posted on the https://countervortex.org/ website at:

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"BIONOIA" Part 1

December 1, 2005 Bill Weinberg
Did U.S. Use Germ Warfare Against DC Peace March?
Or Are We Just Being Bionoid...?

by Mark Sanborne

"Bionoia... Catch It!"

There's something uniquely scary about germs. Along with making us sick, they're the things that put the "B" in ABC (Atomic, Biological, and Chemical) warfare. Sure, there's been some stiff competition on the fear-o-meter: Cheney warning that a WMD attack on a U.S. city was inevitable, ongoing chatter about dirty bombs, a government report that an attack on chemical plants in New Jersey could send a "lung-melting" cloud over New York, killing over a million. Still, the prospect of lab-bred bacteria and viruses causing mass indiscriminate sickness and death holds a special horrid fascination for many people.

This is not surprising. Fortunately, exposure to atomic blast, radiation, and poison gas are hypotheticals for most of us, but we all have personal experience fighting infections and disease, and our species has a long genetic and cultural memory of such ills. And unlike the relatively site-specific nature of nuke and chemical attacks, biological pandemics—be they man-made or "natural"—have the potential to spread their devastation across the country and globe in a matter of weeks or months.

With the latest "regular" flu season and its attendant vaccine shortages upon us, and the specter of deadly bird flu suddenly being trumpeted by the media-medical establishment, it's no wonder that public paranoia has been whipped up. These fears follow a well-worn groove dating back decades: AIDS, of course, and the emergence of other frightening "hot zone" diseases like the Ebola and Marburg viruses from the jungles of Africa, and their potential dissemination via globalization and worldwide air travel: the "revenge of nature" scenario. Domestically, there have also been "outbreaks" like Lyme's and Legionnaire's disease, West Nile virus, and more recently SARS, which supposedly was spawned in the unsanitary condition of China's exotic cuisine market. Then there's the talk of flesh-eating bacteria in our hospitals and other scary diseases-of-the-week.

Fear of "bioterrorism" has been a parallel track running in the public consciousness. For decades there have been warnings from "experts" about the looming threat of biowarfare attacks by terrorists, a menace that became the staple of countless mass-market books, TV shows, and Hollywood thrillers. But who, exactly, are the "bioterrorists?"

A common motif—and still a current favorite—involves terrorists buying black-market plague weapons from disaffected and/or mercenary ex-Soviet or Third World scientists. (Of course, the main real-life example of this trade was the transfer of U.S. bio-agents to Iraq in the 1980s.) This cliched script point found a real-life echo in reports from Afghanistan, after the U.S. invasion in 2001, of documents in a supposed al-Qaeda safe house indicating elaborate if not fantastical plans for aerial anthrax attacks against unnamed targets.

That presumably is the kind of bioterrorism that we're supposed to fear, and for which billions of new homeland-security dollars are currently being spent. But it also raises what should be an obvious question: if the Russians and certain Third World dictators have dangerous biowar programs—what about the U.S.?

TREATY DODGING

Many Americans, sadly, would probably be surprised to discover that the U.S. does indeed have a very robust biological warfare capability, despite the fact that President Nixon ordered a halt to the U.S. biowar program in 1969 and signed the 1972 International Biological Weapons Convention banning their production and use. The BWC was ratified by the Senate in 1974 and to date has been ratified by 143 other nations. Unfortunately the landmark treaty had no enforcement protocol whereby suspicious sites could be inspected, and the U.S. has endeavored mightily ever since to keep it that way.

Most recently, the task fell to that most belligerent of necons, John R. Bolton, who was shoehorned into his U.N. ambassadorship in an Aug. 1 recess appointment by Bush. (The appointment technically lasts until a new Congress convenes in January 2007.) Back in

December 2001, when he was undersecretary of state for arms control and international security (!), Bolton single-handedly scuttled an international conference in Geneva aimed at finally implementing a BWC enforcement protocol, saying it was "dead is not going to be resurrected."

The U.S. was the only signatory to object to the protocol, claiming countries like Iraq and Iran were cheaters, and that inspections could reveal biowar trade secrets of the U.S. military and its partners in the private sector—research with potentially huge commercial value in the pharmaceutical and vaccine industries. Presumably, the fear is that international inspection teams could be infiltrated by foreign intelligence agents—as the U.S. and Britain did in the case of Iraq from the 1990s up until the recent war.

But the larger reason for Washington's adamant if lonely opposition may have more to do with the treaty's other fatal loophole: the "defensive" research exception. The convention's signatories pledge not to develop, produce, stockpile, or acquire biological agents or toxins "of types and in quantities that have no justification for prophylactic, protective, and other peaceful purposes." Unfortunately, that has been interpreted as allowing countries to continue developing ever-more-deadly pathogens, as long as it's done in small amounts and only for the purpose of developing countermeasures, like drugs and vaccines.

That exception allowed the U.S. and others—principally Britain and the Soviets—to continue business as usual by labeling their biowar programs as now being defensive in nature. The U.S. junked its germ stockpiles from the early Cold War period and launched a new generation of biowar research, using cutting-edge advances in recombinant DNA to devise new versions of already virulent diseases. Over the years more and more of that work has been farmed out to spooky "defense" contractors like Science Applications International Corp. (SAIC) and the Battelle Memorial Institute. Never mind international inspectors, it's not clear that anyone—and certainly not Congress—is overseeing this sprawling bio-industrial complex to ensure it's in compliance with international treaty and domestic law.

Here is a vast underground empire, hiding in various government and private labs around the country, sucking up billions of dollars in secret funding, dedicated to creating the very things we fear most, and marred with a long, well-documented history of covert biowar experiments on U.S. citizens and attacks on foreign enemies. Yet those facts and that history are verboten in polite media discourse; instead the talking heads work overtime to keep our post-9-11 fears focused on "terrorists" and "rogue states."

Thus various commentators have had no difficulty speculating that North Korea may be "weaponizing" avian flu for sale to al-Qaeda, that SARS might have been a bioengineered virus that escaped from a Chinese weapons lab, or that the introduction of West Nile virus into the U.S. in 1999 was a dirty trick from Saddam. But it's apparently impossible for our intelligentsia to conceive the possibility that "rogue elements" (whatever that means in today's

context) in the U.S. biowarfare community could be responsible for those or other such horrors, whether by clumsy accident or nefarious design. Except, of course, for the 2001 anthrax attacks, which is perhaps why that highly suspicious case has dropped down the memory hole.

But maybe I'm just being...bionoid.

RABBIT FEVER GOES TO WASHINGTON

Or am I? On Sept. 24, 2005, I joined at least 100,000 other people from across the country on the National Mall in Washington D.C. to protest the Iraq war. It didn't get much press, but here's something that got even less: on Sept. 30, the federal Centers for Disease Control warned public health authorities that a low concentration of the Francisella tularensis bacteria that causes Tularemia—commonly known as rabbit fever—had been detected by six different bioweapons sensors around Washington that day.

The sensors, run by the Department of Homeland Security's Bio Watch program, are designed to detect six bio-agents deemed by the government most likely to be used as biological weapons. The little-known rabbit fever is one of them; it takes only 10 of the microscopic bacteria to cause Tularemia, which if left untreated can kill 50% of those infected. (The other favorites include anthrax, smallpox, and plague.) DHS waited three days before informing the CDC, which took another three days to do its own tests before sending out a low-profile alert.

"It is alarming that health officials...were only notified six days after the bacteria was first detected," House Government Reform chairman Tom Davis (R-VA) wrote in an Oct. 3 letter to Homeland Security Secretary Michael Chertoff. "Have DHS and CDC analysts been able to determine if the pathogen detected was naturally occurring or the result of a terrorist attack?"

"There is no known nexus to terror or criminal behavior," a DHS spokesman told the Washington Post. "We believe this to be environmental." A CDC spokesman concurred, saying: "It is not unreasonable that this is a natural occurrence. There are still no cases of Tularemia."

There are two problems with this bizarrely placid official reaction. One, there are indeed people who say they came down with unknown infections shortly after returning from the protest, though there is as yet no proof that rabbit fever was the culprit. A number of personal accounts of sickness by named individuals were cited on the ProgressiveSociety.com blog for Oct. 8 and on Salon.com Oct. 18.

One person wrote on Progressive Society: "Hi, I wanted to let people know that many people got sick after the march, including myself. Initially, it seemed like the flu, but wasn't

responding to flu treatment. Then I thought to switch to a treatment for bacteria infection, and then started to feel a little better... The incubation time for this bacteria is 3 to 24 days. There are people who came with me from Southern states who are just getting sick now."

Salon cited four people who said they got sick after attending the anti-war rally. One was Mike Phelps, 45, who traveled there from Raleigh, NC, and said he began getting sick three days after returning home. "It was gross," he said. "I literally vomited out cup loads of phlegm. Most of it was dark-colored. I've never had anything like this before." His doctor diagnosed pneumonia and prescribed antibiotics. When Phelps informed him about the Tularemia scare a few days later, the doctor said he would've have prescribed the same antibiotics for rabbit fever.

Salon also interviewed independent experts who scoffed at the idea that a "natural" source of the rabbit fever bacteria somehow ended up in the soil on the Mall and was kicked up into the air by all the protesters. They noted that the six sensors that detected the germs were located miles apart, indicating that a more likely explanation was dispersal from the air. (As at most such protests, there were various helicopters flying overhead all day.)

William Stanhope of the St. Louis University School of Public Health's Institute for Biosecurity told Salon he was convinced it was a botched terrorist attack. "I think we were lucky and the terrorists were not good," he said. "I am stunned that this has not been more of a story."

As for the CDC's "nature did it" explanation, Stanhope says: "One sensor, I'd say maybe. Two sensors is a stretch. Six sensors? I'm sorry, you don't have enough money to buy enough martinis to make me believe that it is naturally occurring at six different sites."

Dr. Steven Hinrichs of the University of Nebraska Center for Biosecurity agreed, telling Salon: "The fact that it happened in six locations would have supported an attack scenario... It could be a failed attack."

An attack, yes. But perhaps also a devious test that, far from failing, did exactly what it was supposed to do. Which again brings us back to the question: precisely who are the "bioterrorists"?

NEXT MONTH: Anthrax, bird flu, SARS and U.S. biological terrorism

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"BIONOIA" Part 2

January 25, 2006 David Bloom
The Nuts, Bolts and Crimes of Biological Warfare

by Mark Sanborne

In Part 1 of this series, which ran in our December issue, journalist and researcher Mark Sanborne noted how the media-fueled fear of microbes—with waves of "bionoia" over

anthrax, SARS and now bird flu—has been used as a new justification for the national security state, even as the Bush administration has sought to erode the Biological Weapons Convention. This month, we take a look back at how the US has actually spearheaded the development of biological weapons—and their use against civilian populations. Part 3, to come next month, will explore the survival of the secretive Cold War biowar apparatus in both the US and Russia, and its links to the new wave of biological threats.

BIO-WARFARE: A BRIEF HISTORY

Bionoia may be a new concept, but biowarfare certainly is not. In its crudest form, it can be traced as far back as Neanderthal man, who rubbed feces on his spear points to add infection to his prey's wounds, while in the sixth century BC, Assyrians poisoned enemy wells with rye ergot, an hallucinogenic. Most famously, Tartars in 1346 catapulted bubonic-plague infected corpses into an Italian trade settlement in Crimea, which possibly helped jump-start the Black Death pandemic that eventually killed a third of Europe. And in our own backyard, first British and later American agents pushed the process of genocide along by deliberately spreading smallpox among Native Americans

In the early 20th century, major European powers began seriously dabbling in biological warfare research. While it wasn't used on the battlefields of World War I, there is evidence that German agents infected horses and cattle in the U.S. with glanders disease before they were shipped to France, though this fascinating escapade had no appreciable effect on the war effort.

By the start of World War II, the U.S. was the only major power not to have a biowar program, though Germany, Britain, and the USSR were wary of using such weapons due to the threat of retaliation in kind. By 1942, the British were testing anthrax weapons at the 520-acre Gruinard Island off northern Scotland, which became so contaminated with deadly spores that it was quarantined for nearly half a century. That same year, pushed to the wall by the Nazi blitzkrieg, the Soviets reportedly made effective use of Tularemia against the Germans near Stalingrad, though the disease spread to Russian soldiers and civilians as well. Washington finally decided to catch up when confronted with the German threat, and more importantly because of Japan's massive biowar campaign in China, which began with its invasion of Manchuria in the 1930s.

The infamous Unit 731, led by radical nationalist Shiro Ishii, developed plague weapons that may have killed hundreds of thousands of Chinese throughout the war, and conducted Mengele-like experiments that killed thousands of prisoners of war, including some Americans. Despite that grisly record, after the war U.S. authorities granted freedom to Ishii and all his cohorts who shared their research data. (The USSR convicted and executed those Japanese biowar researchers it got its hands on, as their weapons had reportedly been used against Soviet troops when they invaded Manchuria in 1945.)

Meanwhile, some of Ishii's now-respectable associates went on to found pharmaceutical companies in Japan. (Shades of the "reformed" Nazi industrialists in Germany.) His successor as Unit 731's commander in the final months of the war, Masaji Kitano, founded the Green Cross blood products firm, and even published postwar research articles based on Unit 731's experiments—but called the subjects monkeys rather than humans.

The U.S. promptly moved on from coddling war criminals to launching its own biowar program in earnest in the post-war period, endeavoring to catch up to the capabilities of the Russians. Fort Detrick in Frederick, MD, became the headquarters of Pentagon's effort under a command that was later dubbed the U.S. Army Medical Institute of Infectious Diseases (USAMRIID). Other key facilities included the Dugway Proving Grounds test center in Utah and the Pine Bluff Arsenal in Arkansas.

In the "golden years" of the 1950s and '60s, these secret facilities churned out tons —yes, tons—of "weaponized" anthrax, botulinum toxin, and our new friend Tularemia (rabbit fever), meaning they could be effectively delivered to our enemies by bombs, missiles, artillery, drone spray-planes, or other means. Plans were also developed to hurt the Soviet economy by killing horses, cattle and swine with germs and viruses cultivated at the secretive Plum Island installation off the north coast of Long Island, N.Y.

TESTING, TESTING...

Even more ominous is the evidence that has since emerged of widespread testing of biowar agents or supposedly safe facsimiles on unsuspecting U.S. citizens. (As in the case of the extensive radiological experiments performed on Americans during this same period, the facts were only admitted by the government many years after the events.) In one of the few cases of semi-informed consent, code-named "Project Whitecoat," Fort Detrick scientists exposed some 2,700 Seventh-Day Adventist volunteers to a variety of infectious agents between 1954 and 1973, though allegedly no one died in the experiments.

There was also a huge airborne test of deadly bio-agents (probably anthrax) near Johnston Atoll in the Pacific in 1968 involving a fleet of Navy ships stocked with Rhesus monkeys, over half of which died. Though shifting winds may have exposed some sailors to toxins, the exercise convinced skeptical U.S. planners that bio-weapons could be delivered effectively against enemy troops.

Numerous other tests in the 1950s and '60s targeted both unknowing service members and civilians for mock attack on a mass scale. The most famous was the dousing of New York City's subway system in 1966 with Bacillus globigii, or BG, an allegedly noninfectious stand-in for anthrax, to study dispersal patterns. (The bacteria was contained in light bulbs that were dropped onto train tracks in midtown Manhattan.) However, it turns out that BG can infect

people with weakened immune systems. Though no casualties were documented in the New York case, it's not clear that anyone at the time would have noticed a slight increase in unknown infections among the elderly, infants, and immune-compromised adults.

BG, Bacillus subtilis, Serratia Marcescens, E. Coli, and other potentially dangerous live bacteria were also loosed upon a variety of other targets: Washington's National Airport and Greyhound bus station, the Pennsylvania Turnpike, and military bases in Key West, California, Virginia, and Hawaii. And way back in 1950, a Navy ship used giant hoses to spray a germ cocktail over the San Francisco Bay area, creating a big enough cloud to theoretically deliver 5,000 "safe" particles into the lungs of each of the city's 800,000 residents. Eleven cases of pneumonia and one death were linked to the test, which one Wall Street Journal account in 2001 dubbed "the bacterial fogging of San Francisco." That simulated attack and many others included the addition of fluorescent particles of zinc-cadmium-sulfide—a substance now known to be carcinogenic—to better track the dispersal of the germ cloud.

CUBA: BIOWAR'S GROUND ZERO

All of which begs the question: If that's how our government treated its own citizens, what did it do to its enemies? It's largely forgotten today, but during the Korean War, China and North Korea accused the U.S. of engaging in large-scale field-testing of bio-weapons against military and civilian targets. These efforts allegedly included bombs filled with plague-infected fleas, a trick the Americans learned about from their friends in Unit 731. Though the case is "officially" unproven, there is considerable scholarly evidence for the claims. (See The United States and Biological Warfare: Secrets from the Early Cold War and Korea by Stephen Endicott and Edward Hagerman, Indiana University Press.)

But the real ground zero for the U.S. use of bio-weapons is Cuba. As early as 1961-62, as part of the CIA's notorious and wide-ranging "Operation Mongoose" terror campaign, anti-Castro agents used bio and chemical agents to poison cane fields, sickening field workers and contaminating Cuba's sugar exports. A decade later, in 1971, the island was infected with African swine flu (the first such outbreak in the Western Hemisphere), forcing Cuban authorities to slaughter all of the country's half-million pigs and depriving it of a staple source of protein. A Newsday report of Jan. 10, 1977 indicated the virus was transported to Cuba from the U.S. base at Fort Gulick, Panama. Swine flu reappeared in 1979-80, and another 300,000 pigs were slaughtered.

Emboldened by such "successes," anti-Castro Cuban terrorists and their U.S. handlers in 1981 apparently introduced a virulent strain of hemorrhagic dengue fever into the island, infecting over a quarter of a million people and killing 158, including 101 children. (Just prior to the outbreak, according to some reports, all personnel at the U.S. naval base at Guantanamo Bay were fortuitously vaccinated against dengue.) A 1982 article in espionage-watchdog magazine Covert Action pointed to Fort Detrick's experiments with dengue fever

and the Aedes aegypti mosquito that spreads it, and noted that Cuba was the only country infected.

Over the next 15 years, there were unrelenting outbreaks of exotic and previously unknown diseases that targeted everything from sugar and tobacco to citrus, coffee, egg, and dairy production. In 1990-91, just as Cuba was launching programs to export bananas and honey, both sectors were hit with debilitating infections.

In April 1997, Cuba became the first state party of the Biological Weapons Convention (BWC) to request an investigation of an alleged biowar attack. It claimed that on October 26, 1996, a single-engine U.S. State Department plane en route from Patrick Air Force Base in Florida was seen releasing an unknown substance over Matanzas province. Shortly thereafter, on December 18, the Thrips palmi insect parasite made its first appearance in Cuba – in Matanzas. A group of 12 BWC state parties discussed the Cuban claim, but found the evidence insufficient.

OPERATION "MARSHALL PLAN"

The obvious should be noted: These acts of state bio-terrorism persisted over four decades through alternating Democratic and Republican administrations, continuing up to Clinton. But even all that pales next to what was contemplated if the U.S. had invaded Cuba during the 1962 missile crisis.

The magnanimously named "Operation Marshall Plan" called for Havana to be blanketed with a cocktail of Venezuelan equine encephalitis and Q fever that would kill "only" 1 to 2 percent of those exposed. "Teams at Pine Bluff made thousands of gallons of the cocktail, enough to fill a swimming pool," the now-infamous New York Times reporter Judith Miller wrote in her 2001 book "Germs: Biological Weapons and America's Secret War." The director of Fort Detrick argued that the plan would cut down on combat casualties and thus had "a humane aspect." Even if the low-ball fatality percentage was accurate, the attack would have killed between 70,000 and 140,000 Cuban civilians.

Since all of this not-so-secret history seems to remain a secret to official Washington, the corporate media exhibits no sense of painful irony when the Bush regime and its think-tank allies regularly accuse Cuba of being a biowar threat. In May 2002, John Bolton made a speech entitled "Beyond the Axis of Evil" charging that Cuba has "at least a limited offensive biological weapons research and development effort" and had "provided dual-use biotechnology to other rogue states." That same month, back on more familiar disinformational territory, Judith Miller, a friend of Bolton's, wrote in the N.Y. Times that "administration officials" believed "Cuba has been experimenting with anthrax."

The biotechnology that Cuba most evidently shares with the impoverished nations of the

world are such things as hepatitis B and meningitis vaccines developed by its world-class pharmaceutical industry. Of course, the country has had plenty of practice defending itself against diseases—though we are meant to ignore the fact that many of them are apparently made in the U.S.A.

Next Month: Anthrax, SARS, bird flu, monkey pox and the new bionoia

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"Bionoia," Pt. 1, WW4 REPORT #116 /node/1342

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"BIONOIA" Part 3

April 30, 2006 David Bloom

The Mystery of Plum Island: Nazis, Ticks and Weapons of Mass Infection

by Mark Sanborne

In Part 2 of this series, which ran in our February issue, journalist and researcher Mark Sanborne looked back at how the US, which now hypes the threat of "bio-terrorism" to justify

gutting the Biological Weapons Convention, has actually spearheaded the development of biological weapons—and their use against civilian populations. In this new installment, Sanborne explores the possibility that unusual outbreaks of exotic diseases within the United States have been linked to the Pentagon's bio-warfare experiments—including some overseen by former Nazis. The closing installments will explore the survival of the secretive Cold War biowar apparatus in both the US and Russia, and its links to the new wave of biological threats.

If covert elements of the U.S. government have indeed been bombarding Cuba for over four decades with diseases aimed primarily at animals and crops, as discussed in Part 2 of this series, where might such bioagents have been developed? One likely suspect is Plum Island, the site where, during the early years of the Cold War, germs and viruses that could be used to wipe out Soviet livestock were cultivated.

Located less than two miles off the North Fork of Long Island and only six miles from Connecticut, the 840-acre Plum Island Animal Disease Center was established after World War II. Initially run by the Army, the facility was put under nominal control of the U.S. Department of Agriculture (USDA) in the 1950s.

The PIADC was dubbed "the safest lab in the world" and tasked with studying diseases that could threaten the nation's livestock—which it did, effectively. But from the beginning Plum Island also played a key role in the U.S. biowarfare program and shared close ties with Fort Detrick, MD, the Army's biowar HQ.

This long-suspected nexus was confirmed in Cold War records declassified in 1993. According to the documents, when calling for a major biowarfare test in the early 1950s, the Joint Chiefs of Staff stated: "Steps should be taken to make certain adequate facilities are available, including those at Fort Detrick, Dugway Proving Ground [Utah], Fort Terry [Plum Island] and an island testing area." ("Plum Island's shadowy past: Once-secret documents reveal lab's mission was germ warfare," Newsday, Nov. 21, 1993.)

"In many cases there were only maybe five people who knew what was going on in weapons research [at Plum Island]. People in one lab didn't know what happened in the next lab, and they didn't ask," said Norman Covert, the aptly named base historian at Fort Detrick.

AGAIN WITH THE NAZIS?

And just to make it officially nefarious: it turns out Plum Island has Nazi connections. Former U.S. Justice Department prosecutor and Nazi-hunter John Loftus wrote his 1982 book The Belarus Secret: "Even more disturbing are the records of the Nazi germ warfare scientists who came to America. They experimented with poison ticks dropped from planes to spread rare diseases. I have received some information suggesting that the U.S. tested some of

these poison ticks on the Plum Island artillery range off the coast of Connecticut during the early 1950s... Most of the germ warfare records have been shredded, but there is a top secret U.S. document confirming that 'clandestine attacks on crops and animals' took place at this time."

More recently, other details emerged in Lab 257: The Disturbing Story of the Government's Secret Plum Island Germ Laboratory by Long Island lawyer Michael Christopher Carroll, who spent six years researching the topic. His explosive book actually prompted a lengthy article in the New York Times ("Heaping More Dirt on Plum Island," Feb. 15, 2004). Though meant as a debunking—aside from Carroll, all seven people interviewed were critics or skeptics—in the Times' perverse tradition, a lot of interesting information was revealed to its mainstream readers. But not all of the establishment took the party line: Former New York Gov. Mario Cuomo endorsed the book as "brilliant" and a "carefully researched, chilling expose of potential catastrophe."

Most of the controversy centered around Carroll's informed speculation that Plum Island may have been the source of a series of epidemics over the decades: outbreaks of Dutch duck plague that almost wiped out Long Island's duck industry in the 1960s, the insidious appearance and spread of Lyme disease in the 1970s and 1980s, a mystery infection that killed most of the Long Island Sound's lobsters in 1999, and in the same year the arrival of West Nile virus in the New York metropolitan area, which claimed a number of lives and prompted authorities to repeatedly spray the city with malathion. Allaying potential public fears over such verboten ideas was a main reason the Times devoted so many inches of newsprint to damage control; the article mentioned the Nazi angle only in passing.

It turns out that the spiritual godfather of Plum Island was one Dr. Erich Traub, a Nazi scientist with a fascinating history, according to Carroll's well-documented account. He spent the prewar years in a scientific fellowship at the Rockefeller Institute in Princeton, N.J., studying bacteriology and virology, while still finding time to hang out at Camp Sigfried, headquarters of the American Nazi movement in Yaphank, Long Island, 30 miles west of Plum Island. He then took his laboratory skills back to Germany where he eventually became chief of Insel Riems, the Nazi's secret biological warfare lab located on an island in the Baltic, supervising the testing of germ and viral sprays over occupied Russia, targeting cattle and reindeer, while reporting directly to Heinrich Himmler.

After the war Traub worked briefly for the Soviets before escaping into the embrace of Operation Paperclip, Washington's covert employment program for useful Nazi scientists. As Werner von Braun was to rockets, Traub was to germs: He promptly went to work for the Naval Medical Research Institute and gave operational advice to the CIA and the biowarriors at Fort Detrick. Indeed, his detailed description of his work at Insel Riems probably helped inspire the selection of Plum Island by the Army: both the German and U.S. facilities were situated on islands where the prevailing winds blew (mostly) out to sea.

VECTOR ANALYSIS

Despite his exceedingly questionable history, Dr. Traub in fact was twice asked to be director of Plum Island, including by the USDA. He declined, but was known to have paid at least several official visits there. He may very well have been one of the Nazi scientists cited by Loftus who supervised the dropping of infected ticks from planes. Which brings us to the question of vectors.

In the context of biowarfare and infectious disease generally, a vector is an organism or agent that carries pathogens from one host to another. To attack an enemy's agriculture system, such intermediary vectors aren't always needed: It's often enough to covertly disperse a pathogen directly on part of a crop and allow the infection to spread from plant to plant, as anti-Castro agents apparently did in Cuba on a number of occasions. (The versatile U.S. attack reportedly has also employed molds, fungi, insect infestations, and other minute pests targeted at specific crops—all of which, of course, had to be grown and tested somewhere first.)

However, it's not quite so simple to attack animal and human populations, which are not stationary targets. Effective aerial delivery of agents like anthrax or rabbit fever can be affected by wind and weather, and is more likely to be detected as a deliberate attack. (Though if it's sprayed on an army of protestors on the Washington Mall, a possibility discussed in Part 1 —well, that's apparently another story.)

On the other hand, employing such vectors as mosquitoes, fleas, lice, and ticks to transmit diseases to targeted populations, while much slower in effect, can spread a greater variety of infections much more widely while maintaining a degree of plausible deniability for the attacker. Thus we should not be surprised that the fruits of Nazi and Imperial Japanese research and development in this ugly field ended up in eager U.S. hands after the war.

RETURN TO CUBA

Which bring us to this: Carroll cites an internal 1978 USDA document titled "African Swine Fever" obtained from an investigation by former Long Island congressman Thomas Downey. It notes that in research at Plum Island 1975 and 1976, "the adult stages of Abylomma americanum and Abylomma cajunense were found to be incapable of harboring and transmitting African swine fever virus." Translated, that means scientists had tested the Lone Star tick and the Cayenne tick as effective vectors for African swine flu and found them wanting.

A vector is generally thought to be a one-way affair. But while this particular vector test failed, it also seems to point, paradoxically, in two directions at once. One is back, once again, to

Cuba. Note that Plum Island's research on suitable vectors for African swine fever took place midway between unusual outbreaks of that disease in Cuba, in 1971 and 1979-80, as discussed in Part 2. (And recall that its appearance in Cuba was a first in the Western hemisphere.)

Perhaps the U.S. scientists were innocuously testing potential vectors that could spread the exotic flu to America's pork industry. Or perhaps—considering Plum Island's longstanding connections to Fort Detrick—the tests were actually designed to find a new vector to transmit the virus once again to Cuba, which coincidentally did suffer another outbreak a few years later. In any event, whatever vector infected Cuba's pigs with African swine fever in 1971 and 1979, it's safe to say it wasn't the Lone Star or Cayenne ticks.

But is that the end of the infected tick story? Unfortunately, no. Because the failed Plum Island vector test also points in another possible direction, right back into the heart of what our political-warrior class now likes to call the Homeland. And rather than riding off ineffectually into the sunset, the Lone Star tick has gone on to a key supporting role in yet another biomystery.

THE PANDEMIC THAT DARE NOT SPEAK ITS NAME

In 1975, a strange disease broke out in Old Lyme, Connecticut, just 10 miles across Long Island Sound from Plum Island. Often initially characterized by a red rash and swollen joints, it afflicted an original cluster of 50 victims, many of them children, who were at first misdiagnosed as having juvenile rheumatoid arthritis.

It turns out that "Lyme disease"—as it came to be called as cases mounted and spread in the years that followed—is a devious, multi-systemic, inflammatory syndrome that mimics other illnesses by encompassing a range of afflictions, including chronic and crippling pain and fatigue that untreated can spread to organs and the central nervous system, causing depression, palsy, memory loss, psychosis, and even encephalitis and death.

Such severe outcomes might surprise many Americans, most of whom have heard of Lyme disease but because of the current lack of media attention probably think it's no big deal—unless they know someone who suffers from it. Well guess what? With a quarter century behind the outbreak, Lyme is now the most common vector-borne infection in the United States, and the most common tick-born illness in the world. Yes, you heard that right.

After spreading out from "ground zero" in the Long Island Sound area, as of mid-April 2006, a total of 267,779 domestic cases of Lyme in 49 states had been reported to the federal Centers for Disease Control. Some experts estimate that, due to Lyme's confusing multiple manifestations, at most only one in 10 cases are recognized and reported to the CDC, so that the total number of victims could be more than 2.68 million. On top of that, a study predicts a

one-third increase in the number of cases per year in the U.S. over the 10-year period from 2002 to 2012.

A TICK WITH A HISTORY

So what's going on? Where did this weird bug—which, leaving aside its suspicious proximity to Plum Island, seemed to emerge from nowhere—supposedly come from? Its history is intriguing. In 1982, National Institutes of Health researcher Dr. Willy Burgdorfer isolated and identified spirochetes (a form of bacteria) of the genus Borrelia from the gut of infected Ixodes scapularis (commonly known as deer ticks) as the etiological agent of Lyme disease. It was dubbed Borrelia burgdorferi (Bb), and the good doctor ruefully said of his discovery: "It's a helluva bug, and I'm sorry my name is on it!"

However, while Burgdorfer was the first to isolate the insidious spirochete (which animal studies suggest in some cases can worm its way deep inside tendons, muscle, the heart and the brain inside a week), earlier incarnations of the disease had been studied in Europe since the late 19th century. By the 1930s, it was known to cause neurological and psychiatric problems and the tiny Ixodes tick was suggested as a vector. By mid-century doctors were using new antibiotic treatments with some success.

But while the disease caused by the Bb bacteria was known in Europe, it did not appear to constitute a major health problem. It was even less of an issue on the other side of the Atlantic: Although Bb and related bacterial strains are thought to have long been present in North America, the only official case reported in the U.S. before the Connecticut outbreak occurred in Wisconsin in 1970, when a hunter became infected from a tick bite.

So what changed in the 1970s to kick-start what has since become a pandemic, both here and in Europe? (Though the P-word is never used in reference to Lyme, as opposed to bird flu, which is still only a potential pandemic.) Or are we to believe that Bb has been infecting people all along but somehow it just wasn't being noticed? A similar argument has been advanced by apologists for the medical-industrial complex who maintain that the recent explosion of autism was simply the result of better detection and recognition of the condition, rather than being largely caused by mercury-laced vaccines, as many now suspect.

THE INVADERS

Dr. Alan G. Barbour, who worked closely with Burgdorfer in the identification of Bb, co-wrote an article with Durland Fish in 1993 that made an interesting case for how the modern outbreak of Lyme disease may have occurred. They suggested that Bb infections were a fact of life in early American history that went largely unnoticed amid the harshness of frontier life:

"The generally benign nature [!] of acute B. burgdorferi infection relative to the debilitating and

fatal effects of diseases plaguing North Americans through the 19th century may have contributed to its obscurity until a cluster of cases of childhood arthritis first brought it to wider attention on this continent. The ecological changes in the northeastern and midwestern United States during this century are responsible for the recent emergence of Lyme disease as a public health problem."

They argue that mass deforestation of the Northeast due to the clearing of land for agriculture and settlement in the 19th and early 20th century resulted in a collapse of white-tailed deer populations, the primary carriers of the I. scapularis tick, and hence the tick itself became too scarce to infect people with Bb. The authors further theorize that Long Island served as a refuge for relict populations of deer in the area. Then, as land-use patterns changed in the latter half of the 20th century, woodlands and forests recovered in the Northeast, along with deer and deer ticks:

"The invasion by I. scapularis of the increasingly reforested mainland from island refuges initiated the current epidemic of Lyme disease in the Northeast ... There is evidence that several independent mainland invasions [mainly from Long Island] by I. scapularis took place, resulting in early Lyme disease foci in central New Jersey, mainland Westchester County, N.Y., southeastern Connecticut, and eastern Massachusetts."

So science seems clear on the fact that Long Island was the source of the modern outbreak of Lyme disease, but the devil is in the details. The key problem with Barbour and Fish's scenario is that it treats pre-1975 Long Island like some kind of lost world, an offshore wilderness Eden where remnant deer lived free of human interaction. In fact, the island's deer population, concentrated in eastern Suffolk County, has long lived close by people, many of whom were certainly exposed to deer tick bites over the years. So why were there no reports of the disease on Long Island in the decades before the outbreak in Connecticut? And why, in the wake of that outbreak across the Sound, did Suffolk County—home of Plum Island—quickly develop one of the highest rates of Lyme disease in the country?

This writer grew up in western Suffolk County in the 1960s and '70s, and spent plenty of time exploring the woods, and was bitten by plenty of ticks. But they were the types of tick you can easily see and feel crawling on your skin, and thus usually could be picked off before they began engorging themselves in earnest on one's blood. Fortunately, there were no deer or deer ticks in my neck of the woods. So it came as quite a shock to learn in the late '70s of the sudden existence, just a few dozen miles to the east, of infected ticks that were almost invisible—literally the size of a pinhead—and had the ability to make an unlucky hiker's life into a living hell. Our tiny friend I. Scapularis is indeed the perfect covert agent: it does its dirty work quickly and disappears before you know it's there, usually leaving behind a telltale rash and a very questionable prognosis.

Okay, enough beating around the real and metaphorical bushes. Is there any actual evidence that Lyme disease could be the outcome of biological warfare research at Plum Island that, either accidentally or otherwise, escaped into the outside world? In fact, the evidence seems quite suggestive, especially when compared to the shaky logic of the official story.

Some might ask: Why would biowarriors be interested in studying a disease agent like Borrelia burgdorferi that incapacitates but rarely kills its victims? Actually, for all the attention focused on deadly pathogens like anthrax, plague, and rabbit fever, the biowar establishments of various powers have also long been interested in agents that can slowly stricken and debilitate a civilian population.

The logic is brutally simple: just as a wounded soldier puts more logistical strain on an army than a dead one does, gradually sickening a population places greater economic and social stress on a society than simply killing a limited number of people with a more direct and virulent attack. If the disease agent can be transmitted via a "natural" vector like ticks or mosquitoes, providing plausible deniability, and can confuse medical authorities by presenting a broad array of symptoms that mimic other conditions (Bb, like its more famous relative syphilis, has been called the "Great Imitator"), then so much the better.

Imperial Japan's infamous Unit 731 biowar outfit, discussed in Part 2, reportedly conducted experiments with the Borelia genus, the results of which likely fell into U.S. hands after the war. However, there is no documentary evidence that indicates Plum Island researchers ever worked with Bb —after all, it is primarily a disease of humans, not animals. On the other hand, if the bacteria were being secretly studied (or worse, "weaponized") at the lab and introduced to ticks for vector tests, there are any number of ways tick-borne Bb could have escaped to the mainland: from deer—which are able to swim to and from the island—to birds, or even an inadvertently infected lab worker. (Assuming, of course, it wasn't released on purpose as part of some sinister test.)

Since the Lyme outbreak, scientists claim to have documented the presence of Bb in I. scapularis museum specimens collected in the late 1940s from Shelter Island and other parts of Long Island close by Plum Island. This is presumed to be evidence that the spirochete was pre-existing in the area and was not "engineered" in a lab in the 1970s. But note that the period the tick specimens were collected is suspiciously close to the time when Nazi scientists may have "experimented with poison ticks dropped from planes to spread rare diseases" at Plum Island.

GIVING NATURE A HAND

The question then arises: Are the unusual characteristics of Bb solely the result of natural evolutionary processes, or were they helped along by the hand of man? Speaking more

generally, here's what Col. Oliver Fellowes, a founding father of Plum Island who was transferred from Fort Detrick in 1952, had to say: "We were always looking for a way to camouflage a strain so that it would be so difficult to detect and identify that, by the time the enemy had done so, the disease would have done the damage." (Unit 731 by Peter Williams and David Wallace, Hodder & Stoughton, London, 1989.)

Wait, it gets better. On July 1, 1969, Dr. Donald MacArthur, director of the Defense Advanced Research Project Agency, testified before a subcommittee of the House Appropriations Committee. He had this exchange with Rep. Robert Sikes of Florida:

DR. MACARTHUR: There are two things about the biological agent field I would like to mention. One is the possibility of technology surprise. Molecular biology is a field that is advancing very rapidly and eminent biologists believe that within a period of five to 10 years it would be possible to produce a synthetic biological agent, an agent that does not naturally exist and for which no natural immunity could have been acquired.

REP. SIKES: Are we doing any work in that field?

DR. MACARTHUR: We are not.

REP. SIKES: Why not? Lack of money or lack of interest?

DR. MACARTHUR: Certainly not lack of interest.

MacArthur's chilling testimony can be seen as the Rosetta Stone of bionoia, and will be discussed in greater detail in a later installment. But we don't need it for confirmation that something like Lyme disease can be considered a biological warfare agent—we have it straight from the source, namely the U.S. government. On Nov. 15, 2005, the Associated Press reported:

"A new research lab for bioterrorism opened Monday at the University of Texas at San Antonio. The \$10.6 million Margaret Batts Tobin Laboratory Building will provide a 22,000-square-foot facility to study such diseases as anthrax, tularemia, cholera, lyme disease, desert valley fever and other parasitic and fungal diseases. The Centers for Disease Control and Prevention identified these diseases as potential bioterrorism agents."

That, it would seem, makes it official. Among those who took note of this matter-of-fact admission was Dr. Virginia Sherr, who, in a letter to the editor published Nov. 22, 2005 in the online edition of the Lancet medical journal, wrote:

"[The] concern is the overriding significance of an invisibilized but nonetheless serious infection caused by an extraordinarily complex neurotropic spirochete. Its pandemic is

approaching severity that was experienced throughout the world in the Spanish Flu of 1918. The causative spirochete is, of course, less immediately fatal than was the virus of that epidemic, but it is deadly, nonetheless, to the human brain. The fact that the causative spirochete, B. burgdorferi, is being studied as an agent of biowarfare in the USA adds impetus to a need for quick education of most of the world's academic physicians as to what has been sensed at the clinical level for a long time: we are dealing here with a formidable 'smart stealth' type of bacteria that is hard to eradicate—one that does extreme damage to psyche and soma if not treated aggressively over the long term when missed in the first days following inoculation by the vector... Organized Medicine has mostly ignored or deserted the field of neuro-Lyme's currently immense proportions, internationally."

THE REVENGE OF TEXAS

Whither Plum Island? According an Aug. 28, 2005, story in Newsday, "Plum Island's Future Up In The Air," the federal government plans to replace the existing facility on the island with a more secure one or relocate to a higher-security level research lab elsewhere by 2011. "The Plum Island facility was built in the 1950s and is nearing the end of its life cycle," according to the Deptartment of Homeland Security. Glad to hear those guys are on the case.

Ah, but what about the Lone Star tick and its failed vector test back in 1975? Aside from that curious coincidence with Cuba, the documented research also appears to have something to say about events much closer to home. It demonstrates that Plum Island researchers were infecting Abylomma americanum with various bioagents to see if they could be successfully vectored to other species. (In this case pigs, but swine are often used as stand-ins for humans in medical experiments.)

That is a matter of some interest because, while the I. Scapularis deer tick is the major vector for Lyme disease in the Northeast, the Lone Star tick has also been found to be a carrier of spirochetes. There is some debate about whether A. americanum can transmit Bb to humans. Researchers say the tick carries a slightly different bacteria that they've dubbed Borrelia lonestari, which may or may not cause a "new" Lyme-related ailment called Masters disease, identified in 1991 in Missouri.

The fact that two different ticks carry their own versions of an unusual spirochete bio-agent is suspicious enough—designer bugs, perhaps? (Check out this unintentional smoking gun in Barbour and Fish's article: "The presence of spirochetes similar to B. burgdorferi in A. americanum in areas where competent vectors are absent is inexplicable.") But here's the real kicker: The Lone Star is a warm-weather tick that is prevalent in the Southeast and until recently was mostly unknown in the colder Northeast. Now it has reached as far north as—you guessed it—Long Island, New Jersey, and Connecticut. (Though perhaps the word should not be "reached" but "released.")

A. americanum now makes up 5% of the overall tick population in the region, though there are greater concentrations in some areas than others. (Researchers combing the woods in New Jersey have found 2,000 to 3,000 Lone Star ticks within one hour.) When did these little devils start being noticed up here in large numbers? Yup: In the wake of the outbreak of Lyme disease—though there are reports that the initial invaders may have "arrived" as far back as the 1950s, just as things were getting underway at Plum Island.

And yes, Abylomma americanum, as it's nickname suggests, has a special association with the Lone Star State. Another import from Texas that the rest of the country probably could have done without.

RESOURCES:

Lyme Disease Foundation http://www.lyme.org/

"The Biological and Social Phenomenon of Lyme Disease," Barbour and Fish, Association for the Advancement of Science, June 1993 http://info.med.yale.edu/eph/vectorbio/fish/BarbourFish.pdf

Dr. Donald MacArthur, Congressional testimony, July 1, 1969 http://panindigan.tripod.com/aidsdodhear.html

See also:

"Bionoia," Pt. 2, WW4 REPORT #118

Special to WORLD WAR 4 REPORT, May 1, 2006 Reprinting permissible with attribution

"BIONOIA" Part 4

July 4, 2006 David Bloom Dengue in Cuba, West Nile in New York: When Mosquitoes Come Home to Roost

by Mark Sanborne

In previous installments in this series, we discussed the wartime use of infected fleas and lice to spread plague (definitely by Japan in China and maybe by the US in Korea), and the possibility that the pandemic of tick-borne Lyme disease was a result of secret biowar research at Plum Island, NY. But there's another bug that has vectored its way into the history of biological warfare, and it's one that almost everyone on the planet is intimately familiar with: the hated mosquito.

The US biowar establishment, it turns out, has long been interested in using the blood-sucking insects as vectors to transmit diseases to designated human populations. A particular favorite is the dime-sized Aedes aegypti mosquito, which has the talent of infecting people with potentially deadly yellow and dengue fevers. In fact, there is unnerving evidence that the US sought to conduct mosquito vector tests on unwitting foreign subjects, and that it may have used the knowledge it gained in such "experiments" to launch a stealthy mass attack on a civilian population, with far-reaching though little-recognized consequences.

A disturbing but fascinating article, "US Attempted to Test Biowarfare in Haryana," appeared in an Indian newspaper, the Deccan Herald, on Nov. 5, 2002. It is worth quoting in its entirety:

Admission by the United States that it released Aedes aegypti mosquitoes in a Pacific island in 1965 as part of its biological warfare test programme has vindicated the Indian government's decision to close down a similar US-sponsored mosquito project in India in the early 1970s, scientists say.

Indian scientists who had worked on the project say the latest revelation has convinced them that they were unwittingly helping the US biowarfare research under the cover of a public health programme to control malaria. NP Gupta, former director of the National Institute of Virology, told PTI that the then prime minister Indira Gandhi "acted correctly" and at the right time by ordering closure of the project before the planned massive release of Aedes aegypti mosquitoes in 1975 at Sonepat, Haryana. The Sonepat project aimed at finding out the range and survival of these mosquitoes and how they dispersed and penetrated homes and other places once release from the centre of town.

Three weeks ago, the US Defense Department de-classified documents listing as many as 46 secret biological and chemical weapons tests conducted at the height of the Cold War. In one such trial, codenamed Magic Sword, Aedes aegypti mosquitoes that transmit yellow and dengue fevers were released off the coast of Baker Island [in the Pacific] to obtain information on mosquito biting habits, mosquito trap technology and operational and logistical problems associated with the delivery of mosquitoes to remote sites.

Mr. PK Rajagopalan, a senior medical entomologist who was on the staff, said the Sonepat project had identical aims (as the one conducted in Baker Island) except that that it was planned on a very large scale using hundreds of thousands of mosquitoes reared at a special

facility in New Delhi built with funds from the US Public Health Service routed through the World Health Organization (WHO).

Prior to its closure, the US project in India drew media criticism and a parliamentary committee probe was conducted due its preoccupation with the Aedes aegypti species that causes yellow fever, a disease which does not exist in India.

Apparently the U.S interest in development of yellow fever as a biological warfare weapon was sustained even after President Nixon supposedly ended the biological warfare program in 1970, says Gupta. Only this time the trial was conducted outside the United States in a developing country under the umbrella of the WHO, he says. Rajagopalan is also surprised at the different standards employed by the US. Baker Island was unpopulated and remote from the mainland, the trial used informed volunteers and the mosquitoes were eradicated after the trial was over. No such plans existed for the proposed release in Sonepat, whose entire population of half a million was to become unwilling volunteers while the Indian Council of Medical Research (ICMR) was in the dark about the real intention behind the release experiment, said Rajagopalan, who retired from an ICMR institute.

Colathur Golpalan, who was ICMR director general at that time, said the US project was permitted by his predecessor and he was not responsible. "It was I who saw to the closure of the project," he said in a telephone interview.

Ms. Indira Gandhi stopped the trial and ordered the project closed on the advice of an expert committee despite mild protests from WHO and denial by the US State Department that the project had anything to do with biological warfare. But according to Gupta, the latest revelation that the Baker Island release was indeed a biological warfare experiment vindicates the closure of the US project in India.

Aside from the breathtaking audacity of the US subterfuge, the Sonepat project also provides further evidence for critics who claim that the WHO and other UN and international (as well as domestic) agencies have long been (and still are) stocked with "experts" who cooperate closely with the US military-intelligence complex. Such cozy covert relationships raise the possibility that Washington may have succeeded in hoodwinking other developing countries into actually allowing mosquito vector tests on their territory under the guise of malaria control. Declassified Cold War documents also indicate that US Army biowarriors at Fort Detrick, MD, conducted A. aegypti release experiments at military bases in Florida and Georgia in the late 1950s, and that war planners had determined that mosquito-transmitted yellow fever, a mostly tropical disease, could be a suitable bioweapon to employ in southern parts of the Soviet Union.

But if, as suggested, such vector tests actually did lead to a stealthy mass attack on a civilian population, where might that have occurred? Round up the usual suspect: Yes, Cuba.

CUBA AND DENGUE: MADE IN THE USA?

As noted in Part 2 of this series, from the 1960s onward Cuba appears to have been on the receiving end of an unremitting barrage of biological attacks hatched in the U.S. and carried out by anti-Castro terrorists—and even directly by State Department spray planes flying over Cuban territory. The list of targets is impressive in its Nazi-like thoroughness: sugar, tobacco, pigs, cattle, coffee, citrus, dairy cows, chickens, turkeys, rabbits, beans and other vegetables, bananas, and honey bees, to name more than a few.

Of course, some of the outbreaks may have occurred naturally, and it's often difficult to conclusively prove one way or the other—that's one of the great advantages of biowarfare. But many of the incidents involved infections, parasites, and blights never before seen in Cuba, and sometimes were firsts for the Western Hemisphere. And they weren't all aimed at plants and animals—we also noted the outbreak of hemorrhagic dengue fever in 1981 that infected over 340,000 Cubans and killed 158, most of them children. The vector for the disease: that uncomplaining workhorse, A. aegypti.

"We share the people's conviction and strongly suspect that the plagues that have been punishing our country, especially the hemorrhagic dengue, could have been introduced into Cuba, into our country, by the CIA," Fidel Castro declared in a July 26, 1981, speech celebrating the Cuban revolution, during which he dealt at length with the public record of US biowar efforts and attacks. "We urge the United States government to define its policy in this field, to say whether the CIA will or will not be authorized again—or has this already been authorized?—to organize attacks against leaders of the revolution and to use plagues against our plants, our animals, and our people."

The State Department responded that charges of Washington's involvement in the dengue outbreak were "totally without foundation... The Cuban revolution is a failure, and it is obviously easier to blame external forces than to admit those failures." But whatever one may think of the Cuban revolution, the fact remains that the health care system it created prevented the hemorrhagic dengue pandemic from turning into a complete catastrophe, as it likely would have in almost any other Latin American country.

"In 1981, we faced the gravest health situation ever to have confronted our country, with tens of thousands of persons hospitalized, and over 10,000 in shock and bleeding," a Cuban health official told a Havana trial hearing evidence about the US role in the outbreak, held in July 2003 as part of Cuba's compensation claim against the United States.

Due to the disease's high mortality rate, medical authorities expected a minimum of 3,000 fatalities in the first few weeks, yet Cuba's model response—combined with what one pediatrician called "collective thinking"—kept the death toll remarkably low. (In fact, Cuba's

effective approach to the dengue outbreak was subsequently adopted by the Pan American Health Organization.)

So, aside from means, motive, and opportunity, what else indicates the US may have been behind the outbreak? Let's start with the fact that it was the first major epidemic of hemorrhagic dengue in the Americas in nearly a century. Then there are the odd particulars: the epidemic began with the discovery of simultaneous clusters of infections in three widely separated parts of Cuba (Cienfuegos, Camaguey, and Havana) that then spread like wildfire, and none of the initial victims had recently been away from home or been in contact with international travelers who might have carried the disease and transmitted it to the local mosquito population.

Oh, and how about a confession? In 1984, Eduardo Arocena, head of the Omega-7 terrorist group, on trial in the US for the murder of a Cuban UN diplomat, affirmed that his group—and he personally—had introduced "germs" into Cuba, including dengue, as part of the US biowar against Castro. (He was convicted of the murder, and revealed as an FBI informant, leading to the collapse of his group.) Previous reports had indicated Cuban terrorists also smuggled the African swine flu virus into the country in the late 1970s, forcing the slaughter of all of the island's pigs.

Cuban counter-revolutionaries are known for their braggadocio, even in court, and in the case of the 1981 dengue pandemic it's unclear how they could have smuggled the thousands of pre-infected A. aegypti mosquitoes into Cuba that would have been necessary to spark the outbreak. (How many mosquitoes can be crammed into a large suitcase or packing crate—or even a diplomatic pouch?)

Dengue is an arbovirus (i.e. transmissable only by insects) and cannot be transmitted between humans—each victim requires their own mosquito bite. Though one insect can infect multiple victims, it's likely that, based on the number of Cuban afflicted, several hundred thousand mosquitoes would have had to be released to achieve the desired effect, putting the scale of the operation suspiciously in line with that of the aborted Sonepat test project. For that reason, it seems more likely that the mosquitoes were somehow dispersed from the air, dropped like covert paratroopers behind enemy lines—and indeed, the locations of the three initial outbreaks were all close by international air corridors.

THE LAW OF UNINTENDED (?) CONSEQUENCES

According to the Centers for Disease Control, dengue (pronounced "DEN-ghee") "is the most important mosquito-borne viral disease affecting humans; its global distribution is comparable to that of malaria, and an estimated 2.5 billion people live in areas at risk for epidemic transmission." Tens of millions of people are infected with dengue fever (DF) annually. However, while debilitating and terribly painful (it's not known as "break-bone fever" for

nothing), DF infection is relatively short-lived and fatalities are rare. But each year sees several hundred thousand cases of the more virulent dengue hemorrhagic fever (DHF), leading to tens of thousands of deaths among those who develop the related dengue shock syndrome (DSS)—a mortality rate of about five percent in most of the world, though it can be much higher in more undeveloped areas.

And here's where it gets even more interesting, and frightening. There are four types of DF (DEN-1, 2, 3, and 4), and getting one type does not give the victim immunity from contracting the other types. In fact, it is known that contracting one version after having earlier been infected with another can make the victim particularly prone to developing the much more dangerous DHF/DSS.

Following World War II, mass spraying of insecticides targeted against A. aegypti succeeded in eliminating most major DF epidemics in the Western Hemisphere, though the spray campaign waned in the 1970s due to environmental concerns. By 1970, only DEN-2 was present in the Americas. Suddenly, in 1977—two years after the Sonepat project was cancelled—DEN-1 appeared in Jamaica (where another U.S. bete noire, the socialist Michael Manley, was in power) and then Cuba, the first major dengue outbreak in the country since 1944. Though it was a milder version that didn't lead to DHF and caused no deaths, it was widespread and helped lay the epidemiological groundwork for a subsequent hemorrhagic outbreak. (A 1978 serologic survey indicated that 45% of the Cuban population had been infected with DEN-1, whereas before 1977 only 2.6% had antibodies for the virus. That's quick work.)

Then in 1981, a "new" strain of DEN-2 exploded onto the scene in Cuba, and this one, insidiously piggy-backing on the 1977 pandemic, did lead to a mass hemorrhagic outbreak of DHF and DSS, the first in the hemisphere since the turn of the century. The CDC says the deadly new strain was from Southeast Asia, where the disease is endemic and is the leading cause of hospitalization and death among children. But Cuban and other researchers are more specific: they say it is identical to one known only from a 1944 outbreak in New Guinea. In which case, the odds of such an obscure strain suddenly appearing in multiple places in Cuba by "natural" causes seem slim indeed.

(There were reports that the all of the personnel at the US Navy base at Guantanamo were vaccinated against dengue prior to the 1981 outbreak and thus were not infected. While the medical literature notes that currently there is still no publicly available vaccine against dengue, a Google search also indicates that a modern vaccine was first produced in the late 1970s and early 1980s by the Walter Reed Army Institute of Research and GlaxoSmithKline Biologicals—and the Pentagon has never been shy about giving its troops experimental drugs, as it did with anthrax vaccine in the first Gulf War.)

In the years following 1981, Cuba launched a rigorous program of A. aegypti eradication,

vector control, and medical surveillance to keep dengue in check, though there were further smaller outbreaks in Santiago de Cuba in 1997 and Havana in 2001-2 that were contained with limited casualties. (While there is no evidence that the origins of these particular epidemics were suspicious, some have speculated that they may been designed to hurt Cuba's growing foreign tourism industry.)

Meanwhile, in the years following the 1981 outbreak, the virulent strain of "imported" DEN-2 that caused it proceeded to metastasize rapidly throughout the Caribbean to Mexico and Central and South America. By 2003, 24 countries in the Americas had reported confirmed cases of hemorrhagic dengue where it was previously unknown, and potentially deadly DHF is now endemic in many of these countries. (The U.S. itself gets an estimated 100 imported cases of dengue a year.) If, as the evidence strongly suggests, both the 1977 and 1981 Cuban pandemics were spawned in Washington—or more specifically, Fort Detrick, MD—then the resultant devastating effects on the hemisphere as a whole are staggering to contemplate. It would represent state bioterrorism on an almost unimaginable scale.

Is this an example of the law of unintended consequences? One can only hope they were unintended, though it's hard to see how they could not have been foreseen. Evidently, for those in a position to know, the "gain" was deemed to be worth the risk.

THE ARRIVAL OF WEST NILE

Which leads us to our last stop on Bionia's skeeter hit parade. Remember the West Nile virus, way back in those halcyon pre-9-11 days of 1999? It made a particularly big impression on those of us who live in the New York City metropolitan region, where the disease made its first appearance in the Western Hemisphere in August of that year. Lucky us.

The first case of human infection occurred in Queens on Aug. 2. By the end of the year, there were a total of 62 cases and seven deaths in the region from the mosquito-borne illness, most of them older people with compromised immune systems. More alarming for many was the initial "cure" imposed by the administration of Mayor Rudolf Giuliani: mass spraying of the insecticide malathion, a likely carcinogen. This writer was among the many who had to dodge inside to escape swooping, spraying helicopters in Brooklyn and Queens, while some residents walking the late-night streets of Manhattan were actually hosed in the face with the poison from passing trucks.

West Nile is a member of the genus flavivirus, along with our new friends dengue and yellow fever, though WN is much less of a global health threat. About 80% of those who contract West Nile show no symptoms and are unaware they are infected, while others display mild, flu-like symptoms. In the few worse cases it can lead to deadly encephalitis and meningitis, and in fact its initial appearance was misdiagnosed as St. Louis encephalitis.

Transmitted by mosquitoes and other vectors, particularly birds, WN has since spread quickly across the country, and by 2003, 45 states and the District of Columbia had reported human cases. By 2005, a total of 19,625 cases and 882 deaths were reported by the CDC, considerably less than the annual toll from the common flu. (However, the number of those infected but undiagnosed or without symptoms probably numbers in the hundreds of thousands.) More alarmingly, while direct human-to-human transmission was initially ruled out, in 2002 it was discovered that the virus could be transmitted through donated blood, organ transplants, breast milk, prenatal exposure, and occupational exposure.

Another spooky attribute of WN is its propensity to kill birds, its most common host. An unusual number of dead birds, particularly crows, were evident around the tri-state area for a while before they were connected to the West Nile outbreak. The virus was first discovered in 1937 in Uganda, and the African variety does not affect bird or animal hosts. Other mild outbreaks occurred in Israel in the 1950s the South Africa in the 1970s, but beginning in the mid-1990s a string of more serious epidemics occurred in North Africa, Israel, Italy, Russia, and Romania that included large die-offs of local bird populations. This seems odd, because it's generally not in the evolutionary interest of a virus to kill off its main host that gets it from place to place.

Was this creepy entourage of dead crows some sort of designer harbinger for the end of the millenium? (Perhaps an engineered Avian flu will be the Antichrist.) Is it evidence, as some observers have suggested, that the virus—which has long been held in government labs here and around the world—was modified genetically as part of some shadowy biowar project?

THE USUAL SUSPECTS

Our last installment dealt at length with the questionable history of the Plum Island Animal Disease Center, located off the North Fork of eastern Long Island, particularly in regard to its possible propagation of tick-borne Lyme disease. Considerable evidence was cited from a 2004 book, Lab 257: The Disturbing Story of the Government's Secret Plum Island Germ Laboratory, by Michael Carr, who also weighed in on the West Nile question. He wrote that Plum Island researchers were already studying the WN virus at the time of the outbreak (officials deny this), and cites the death of 18 horses in eastern Suffolk County near Plum Island in August 1999 as evidence that the North Fork was the epicenter of the epidemic.

The official story is to blame international air travel, as if that's something new. It's suggested that a WN-infected traveler (yet another Patient Zero) from the Middle East arrived in New York and was bitten by a local mosquito or two, who then went on a major feeding binge and spread the disease to both birds and humans far and wide. Or perhaps a few infected mosquitoes somehow hitched a ride to New York on a jet and wreaked havoc when they escaped into the environment. Or maybe an infected bird was imported or somehow made its way across the ocean. But questions of geography persist: How could such sole-source

vectors initially manage to infect both horses at one end of Long Island and humans at the other end, in Queens, but very few people in between? (Though later Suffolk County did develop one of highest rates of West Nile, as it did with Lyme disease in the 1970s.) Just as in the case of the simultaneous appearance of dengue in three widely separated parts of Cuba, here is a hint of the hand of man, not nature.

Or maybe it was just an "accident." If Plum Island (i.e. the US underground biowar complex) was somehow the source of the West Nile outbreak and/or Lyme disease, were the releases somehow inadvertent, or were they in fact something far more sinister—that is, stealthy mass attacks on domestic civilian populations? Again, considering the apparent US role in spreading a deadly version of dengue fever in the Western Hemisphere, it's hard to give "them" the benefit of the doubt.

In fact, the idea that the arrival of West Nile was a potential bioterrorist event was knocked around quite a bit by media pundits early on in the outbreak, though the short list of official suspects should not surprise anyone. In a recent web search for "West Nile and biological warfare," these were the first four stories that came up: "West Nile Virus—Is Castro's Bioterrorism Threat Being Ignored?"; "Castro Weaponizes West Nile Virus"; "Iraq and Cuba – Fitting Pieces in the West Nile Puzzle?"; and "West Nile Virus: Part of Hussein's Plan—via Cuba?" This US intelligence disinformation campaign, spread by NewsMax and several rightwing Cuban-American web sites, while predictable, is at least as fanciful as a story on the CDC's web site positing that Alexander the Great may have died of West Nile virus encephalitis.

Some accounts at the time did take note of the embarrassing fact that the CDC had provided samples of West Nile and a host of other potential biowar agents to Saddam Hussein's then-friendly regime in the mid-1980s. While the strain delivered to Iraq was different than the one that turned up in New York, NewsMax declared that "experts have confirmed that Saddam has the ability to mutate viruses and other biological agents." (Sounds like he's one of the X-Men.)

But it wasn't only right-wingers who weighed in on the subject. In the October 11, 1999 edition of The New Yorker, Richard Preston wrote a lengthy story headlined "West Nile Mystery: How Did It Get Here? The CIA Would Like to Know." It cited the concerns of unnamed intelligence analysts, and referred to an excerpt of a book entitled In the Shadow of Saddam published in the April 6, 1999, Daily Mail, a London tabloid. The author, who called himself Mikhael Ramadan, purported to be have been one of Saddam's body doubles before he escaped from Iraq, and claimed his boss bragged to him in 1997 that Iraq had developed a strain of WN that was "capable of destroying 97% of all life in an urban environment."

Preston acknowledged that the claims "sounded crazy," but went on to suggest that there might be at least a germ of truth behind the story, displaying only slightly more skepticism

than the American press later did in the trumpeting of Iraq's nonexistent WMD threat during the run-up to the 2003 invasion. So here's a final suggestion for all those official experts out there: Next time an incidence of possible bioterrorism pops up on the media's radar, try to avoid the usual projection of guilt upon the empire's victims, and instead take a look in the mirror.

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Special to WORLD WAR 4 REPORT, July 1, 2006 Reprinting permissible with attribution

"BIONOIA" Part 5

September 4, 2006 David Bloom Biopreparat: Biowar on Steroids, Soviet-Style

by Mark Sanborne

Earlier installments in this series focused primarily on the US role in secretly researching, developing, and disseminating biological warfare agents through both tests and accidental releases, as well as deliberate attacks on plant, animal and human populations. However, the US is not the only bogeyman in the bionoia closet. In a little-noticed sideshow to the Cold War's conventional and nuclear arms races, it turns out the Soviet Union actually outstripped Washington's efforts on the biowar front, building a vast military-industrial complex that churned out deadly "weaponized" pathogens on a staggering scale.

This is not exactly a state secret. In fact, for those who follow such matters, the extent of the Soviet program (which continues in reduced and mysterious form in post-communist Russia) has been widely known and commented on since the 1990s. Discussed less—if at all—is the related question of what the US itself was doing in this field during the heyday of the Soviet effort in the 1970s and 1980s, after both countries signed the Biological Weapons Convention in 1972, outlawing such weapons. But for now we will focus on what the Russians were up to, since it is a fascinating and frightening story that continues to have repercussions today.

The USSR began its biological warfare research in 1928, and the pace of the program picked up leading into World War II in the face of active Nazi and Japanese biowar threats. It has been reported by Ken Alibek (about whom more shortly) that the Red Army employed air-dispersed tularemia or rabbit fever against the German troops besieging Stalingrad in 1942-43, which infected many of the enemy but also spread to Soviet troops and civilians. However, a 2001 article in the journal Military Medicine argued that the epidemic was more likely a result of natural causes exacerbated by the complete breakdown in public health infrastructure. ("Natural causes" certainly seems more likely in this instance than it does in the case of the tularemia outbreak that occurred at a 2005 anti-war rally on the Washington Mall, as discussed in Part 1.)

In the post-war period through the early 1970s, the Soviet military mirrored the American biowar program by successfully weaponizing and mass-producing such "classic" bioagents as smallpox, bubonic plague, anthrax, tularemia, brucellosis, and Venezuelan equine encephalitis. Such weapons could be delivered on the battlefield via artillery, bombs, tactical missiles, and manned or drone spray planes. But the Russians also developed an even more scary "strategic" option: They reportedly designed a version of their new generation of intercontinental ballistic missiles equipped with MIRVs (Multiple Independently-targeted Reentry Vehicles) that can deliver multiple nuclear warheads from a single missile to different

targets—to carry smallpox, plague, and anthrax to cities on the other side of the world. (Though the US pioneered MIRV technology, it's unclear if it ever developed its own version of biowar ICBMs.)

In 1973, ostensibly as part its compliance with the recently signed Biological Weapons Convention (BWC), Moscow reorganized its clandestine efforts and formed an entity called Biopreparat under the government's Main Microbiological Industry Agency. Biopreparat's mission was to prepare against biological threats, both natural and man-made, by developing vaccines and other drugs. While officially a civilian agency, it worked closely with the military, and "Biopreparat" ultimately became a useful and catchy shorthand for the entire Soviet biowar complex.

At its peak, by some accounts, Biopreparat employed some 30,000 scientists and staff, while another 10,000 worked directly for the Soviet Defense Ministry. Other estimates run to a total of as many as 100,000 people working at an archipelago of up to 50 labs, pharmaceutical factories, research institutions, and test facilities spread across the entire Soviet Union. About half of the people were said to work on the "defensive" side—developing vaccines and other treatments against disease—while the other half worked on the offense, using the emerging science of genetic engineering to develop new versions of old germs and viruses.

Under the terms of the BWC, signatories were permitted to maintain small stocks of biological agents only "for prophylactic, protective, and other peaceful purposes." The Soviets drove a veritable tank through that "defensive research" loophole. While the US has played the same deceptive game, the scope of its biowar efforts were considerably more modest, at least in terms of their physical scale and the funds devoted to them. As in other arenas of military and scientific competition with the West, the Soviets made up for their technological shortcomings with unlimited manpower, and the brute force of mass industrial production: biowar on steroids.

THE DEFECTORS

Virtually all that we now know about Biopreparat has come from defectors, two of whom we know about. The first was Vladimir Pasechnik, a top Biopreparat microbiologist who defected to Britain in 1989. He put a scare into British intelligence, and subsequently the CIA, by informing them that Moscow's biowar program was 10 times bigger than Western experts had thought and had developed "strategic" contagious biological weapons. More specifically, he asserted that as director of the Institute of Ultrapure Biopreparations in Leningrad he presided over research that led to the development of a variety of plague resistant to antibiotics

As a result of Pasechnik's revelations, British Prime Minister Margaret Thatcher and US President George HW Bush pressured Soviet leader Mikhail Gorbachev to open up his country's biowar facilities to inspection. A joint US-UK team was allowed to tour four key

Biopreparat facilities in 1991, but were greeted with cleaned-up labs and sterilized production facilities as well as denials from Soviet officials.

"This clearly was the most successful biological weapons program on earth. These people just sat there and lied to us, and lied, and lied," a British inspector told writer Richard Preston, who relayed the account in a March 2, 1998, New Yorker story, "The Bioweaponeers." Another inspector said: "If Biopreparat was once an egg, then the weapons program was the yolk of the egg. They've hard-boiled the egg, and taken out the yolk and hidden it."

The second key insider was Ken Alibek (born Kanatjan Alibekov), the deeply disillusioned first deputy director of Biopreparat, who defected to the US in 1992. He spent several years being debriefed by and advising military and intelligence officials, and ultimately wrote a book, Biohazard: The Chilling True Story of the Largest Covert Biological Weapons Program in the World—Told From Inside by the Man Who Ran It (Random House, 1999), which introduced the American public to the story of Biopreparat. In addition to becoming a resident media expert on bioterrorism, he is currently president of AFG Biosolutions, where one of his projects is aimed at developing affordable anti-cancer therapies in Eastern Europe and Central Asia.

Alibek is generally regarded as a reliable source by Western experts, at least when he is talking about things he has direct knowledge of. And he appears to know a lot, as he was more of a hands-on scientist than a government functionary. For one thing, he personally helped develop the Soviet's most potent form of weapons-grade anthrax – dubbed Alibekov anthrax. He also has some scary stories to tell. The hands-down scariest one involves the fate of a colleague of his, Dr. Nicolai Ustinov, who worked at a major Biopreparat facility called Vector, located outside Novosibirsk in western Siberia.

As related in Preston's article, Ustinov had been studying the deadly Marburg virus, a close cousin of the better-known Ebola virus, when he pricked his finger through his biocontainment suit with an infected needle. (Like Ebola, Marburg originates in Africa. It is known from Kitgum Cave near Mt. Elgon in Kenya, though Alibek suspects Soviet agents obtained their sample from the outbreak that gave the virus its name, which occurred in 1967 among workers handling infected monkeys at a vaccine factory in Marburg, Germany.) Ustinov was isolated and fell ill within days, and began keeping a scientific diary of his hemorrhagic disintegration as blood began seeping from his orifices. Within two weeks he was dead.

"The final pages of Dr. Nikolai Ustinov's scientific journal are smeared with unclotted blood," Preston writes. "His skin developed starlike hemorrhages in the underlayers. Incredibly—the Vector scientists had never seen this before—he sweated blood directly from the pores of his skin, and left bloody fingerprints on the pages of his diary. He wept again before he died."

The story ends even more macabrely, if that's possible. Supposedly, researchers froze

Ustinov's liver and spleen and a quantity of his blood, and used it to keep the viral strain alive, dubbing it Marburg Variant U, for Ustinov. (It's not clear if he would have appreciated the honor.) They then learned to mass-produce it as a coated, inhaleable airborne dust that could drift for miles. According to Alibek's account, a test "found that just one to five microscopic particles of Variant U lodged in the lungs of a monkey were almost guaranteed to make the animal crash, bleed, and die. With normal weapons-grade anthrax, in comparison, it takes about eight thousand spores lodged in the lungs to pretty much guarantee infection and death."

CREATING CHIMERAS

Marburg and Ebola are bad enough, but at least they are known and presumably naturally occurring viruses. (Some people, of course, have doubts even about that.) Even more controversial is Alibek's claim that Soviet researchers in the early 1990s had studied using recombinant DNA to create so-called chimera viruses, named for the mythical Greek creature made up parts of various animals. Specifically, he said Biopreparat had separately succeeded in splicing genetic material from Venezuelan equine virus and Ebola into smallpox.

While a number of Western experts scoffed at such claims when they were made, in the years since chimera viruses have become a major new tool in medical research, particularly for vaccines. (Just plug "chimera virus" into Google and see all the medical paper hits you get.) Biopreparat researchers at Obolensk, near Moscow, have published scientific papers on two examples of such gene-splicing. One involved altering the Francisella tularensis bacteria that causes tularemia so that it produces beta-endorphins that boosted thresholds of pain sensitivity in infected mice, changes that in humans could make it difficult for the disease to be diagnosed. Another involved the creation of a bioengineered anthrax that both made it harder to detect and resistant to the existing anthrax vaccine.

Further evidence comes from another Russian emigre from Biopreparat, but one less well-known than Pasechnik and Alibek. Serguei Popov came to the West around the same time as Alibek but attracted little attention until his research was cited in Alibek's book. An article by Mark Williams in the March-April 2006 edition Technology Review, an MIT publication, titled "The Knowledge," included an interview with Popov. He talked about the high-manpower and low-tech approach needed to perform gene sequencing in the primitive days of the early 1980s:

"We had no DNA synthesizers then. I had 50 people doing DNA synthesis manually, step by step. One step was about three hours, where today, with the synthesizer, it could be done in a few minutes – it could be less than a minute. Nevertheless, already the idea was that we could produce one virus a month If you wanted a hundred people, it was hundred. If a thousand, a thousand."

As Williams notes, "It is a startling picture: an industrial program that consumed tons of chemicals and marshaled large numbers of biologists to construct, over months, a few hundred bases of a gene coded for a single protein." He also observes that such work could be done easily today with second-hand gene-sequencing equipment available over eBay for around \$5,000. But perhaps the most frightening thing in the article is this:

Into a relatively innocuous bacterium responsible for a low-mortality pneumonia, Legionella pneumophila, Popov and his researchers spliced mammalian DNA that expressed fragments of myelin protein, the electrically insulating fatty layer that sheathes our neurons. In test animals, the pneumonia infection came and went, but the myelin fragments borne by the recombinant Legionella goaded the animals' immune systems to read their own natural myelin as pathogenic and attack it. Brain damage, paralysis, and nearly 100 percent mortality resulted: Popov had created a biological weapon that in effect triggered rapid multiple sclerosis. (Popov's claims can be corroborated: in recent years, scientists researching treatment for MS have employed similar methods on test animals with similar results.)

Whew. And if that wasn't enough, Williams cites a transcript of a 2003 speech by George Poste, former chief scientist at SmithKline Beecham and chair of a US Defense Department bioterrorism task force. Poste recalled attending a recent biotech conference on the subject of memory-boosting agents: "A series of aged rats were paraded with augmented memory functions... And some very elegant structural chemistry was placed onto the board... Then with the most casual wave of the hand the presenter said, 'Of course, modification of the methyl group at C7 completely eliminates memory. Next slide, please.'"

WHERE ARE THEY NOW?

Meanwhile, time has marched on for Biopreparat, and now it is trying to remake itself as a profitable vaccine a pharmaceutical concern. In the late 1990s in supposedly became a "joint-stock company," though publicly the Russian government says it has reduced its controlling stake in Biopreparat to 51 percent, and it has not been determined who controls the other 49 percent.

At the same time, as uncertainty over the safety of Russia's remaining bioweapons complex continues, the US DoD has budgeted \$61 million in fiscal 2006 under its Cooperative Threat Reduction program to help secure facilities in six countries: Russia, Georgia, Kazakhstan, Uzbekistan, Azerbaijan, and Ukraine. (The US does not yet have such programs in five other former Soviet states that have biowar facilities: Armenia, Kyrgyzstan, Moldova, Tajikistan, and Turkmenistan.)

One in site in particular need of security and clean-up is Vozrozhdeniye ("Rebirth") Island in the Aral Sea, which is currently split between Kazakh and Uzbek territory. Up until 1992, when Russia's then-President Boris Yeltsin ordered the closure of all offensive biowar programs,

Vozrozhdeniye had been the main testing site for bioagents developed by Biopreparat, and so the island was impregnated with residue from virtually every pathogen in the Russian arsenal, and is considered the world's largest anthrax burial ground.

There is a certain urgency behind US funding and expertise being used to "remediate" the island's poisoned soil, because soon it will no longer be an island. The Aral Sea continues to shrink due to the diversion of water for agricultural projects, and there already is a virtual land bridge to the mainland, making it harder to secure the facility at the same time that toxic sludge may be leaching downward and outward into the spreading sands. It would appear that this is a US foreign aid project that we can all get behind.

In the end, perhaps the most surprising thing about Biopreparat is the apparent total ignorance Western governments had of the program's vast extent before the revelations of Pasechnik and Alibek. This would seem to represent one of the most critical yet underreported intelligence failures in recent US history. In fact, it's almost hard to believe that with all of the Pentagon's spy satellites focused on Soviet military-industrial installations—along with other evidence, like the anthrax leak at a Biopreparat facility near Sverdlovsk in 1979 that killed hundreds—no one on the US side had a clue what was going on.

Whatever the explanation, US biowarriors weren't exactly sitting on their hands during the period when Biopreparat was going like gangbusters. The Americans were busy, but they went about their business with a smaller footprint than their Soviet counterparts.

Nevertheless, Moscow assumed that Washington did in fact have its own offensive biowar establishment hidden from sight, which was how the leaders of Biopreparat justified breaking the Biological Weapons Convention to the extent that they did.

So what were "we" up to in those carefree days of the '70s, '80s, and '90s? Stay tuned...

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Special to WORLD WAR 4 REPORT, Sept. 1, 2006 Reprinting permissible with attribution

"BIONOIA" Part 6

April 1, 2007 Christopher Rywalt Whatever Happened to the AIDS Conspiracy?

by Mark Sanborne, WW4 REPORT

"Let he who has not sinned cast the first stone."

In the last installment in this series we discussed Biopreparat, the Soviet Union's massive yet surprisingly covert biological warfare program, the frightening details of which only emerged in the West in the early 1990s. It didn't become a huge public issue at the time because with the Cold War over and Russia our "friend," Soviet-era misbehavior no longer had the same propaganda value. But a number of US scientists, security experts, and pundits did express

shock and legitimate outrage over the extent of Soviet violations of the 1972 Biological Weapons Convention (BWC): "weaponizing" vast amounts and varieties of deadly bioagents, designing bioweapon warheads for their intercontinental MIRV missiles, and using the emerging science of gene-splicing to engineer ever-more deadly hybrid and "chimera" versions of existing pathogens.

Terrible stuff. So the question naturally arises: what, if anything, were US biowarriors up to during the heyday of Biopreparat in the 1970s and '80s? Except, of course, the question is virtually never asked in official discourse and mainstream accounts. So let's try to begin to answer it.

Both Washington and Moscow used the "defensive research" exception in the BWC to justify designing new varieties of bioagents, the argument being you had to create a threat (a new version of a virus or bacteria) so you could devise vaccines or other countermeasures against it before a potential enemy did. Specifically, the treaty only allows the possession of limited amounts of bioagents or toxins "for prophylactic, protective, and other peaceful purposes." Both sides found ways to stretch that language considerably—except while the Soviets drove a tank through the loophole, the Americans used a sports car, leaving a much lighter footprint.

There's no evidence that after signing the BWC the US developed new stockpiles of "classic" bioagents (such as anthrax, tularemia, brucellosis, bubonic plague, and smallpox), at least not on anything near the enormous scale the Soviets did. Nor has evidence emerged that the US ever put biowarheads on its ICBMs, though that could be one top secret that's stayed buried. But, as with most technical fields, the US was ahead of the Soviets in the emerging science of molecular biology, and the record indicates that US military scientists played an important role in the development of that field in the 1970s.

Interestingly, as Washington was preparing to sign the BWC, President Nixon, as part of his "War on Cancer," in 1971 shifted much of the Army's biowar research facilities at Fort Detrick, Md., to the ostensible control of the National Cancer Institute. This allowed military scientists (or civilian scientists working for the military) to conduct cutting-edge genetic engineering experiments with biowar applications under the cover of legitimate cancer research. Much of the work was done as part of the somewhat sinisterly named Special Virus Cancer Program, which had been in existence since 1964—and about which more later.

And so the US bio-military-industrial complex continued to quietly thrive, spread out in an archipelago of government and private labs around the country, with much of the work being farmed out to drug giants like Merck and spookier outfits like Litton Bionetics. In a sense, it was a more under-the-radar version of Biopreparat, lacking its mass industrial-production facilities and toxic outdoor testing grounds, but surpassing it in developing the technical skills needed to devise a new generation of deadly bioagents.

MACARTHUR TESTIMONY: BIONOIA'S ROSETTA STONE?

Where did that path lead? When conspiracy-minded critics raise questions about the origins of the variety of new diseases and medical syndromes that "emerged" in the 1970s and '80s, they often point to the so-called MacArthur testimony as a putative smoking gun. For those uninitiated into the mysteries, that would be one Dr. Donald MacArthur, then-director of the Defense Advanced Research Project Agency, who on July 1, 1969, testified before the defense subcommittee of the House Appropriations Committee on the "research, development, testing, and evaluation of synthetic biological agents," among other things. A portion of his testimony was cited in Part 3 of this series, and referred to as a potential Rosetta Stone of bionia. Here is a more complete version, beginning with the good doctor's exchange with Representatives Robert Sikes of Florida and Daniel Flood of Pennsylvania:

REP. SIKES: Tell us something about the biological weapons, both lethal and incapacitants. Tell us what we are doing and what the Russians are doing.

DR. MACARTHUR: I am sure all of you know biologicals are microorganisms. We have had a policy that the biological agents that we would try to develop would be noncontagious; that is, that it could not be passed on directly from individual to individual.

REP. FLOOD: Would they be effective if not contagious?

DR. MACARTHUR: They could be infectious from the standpoint that they would be used as a primary aerosol and infect people inhaling it. After that they could be carried from me to you, say by an insect vector—a mosquito, for example.

REP. FLOOD: Could they be effective and contagious?

DR. MACARTHUR: No.

REP. FLOOD: I doubt that. I doubt that.

DR. MACARTHUR: A contagious disease would not be effective as a biological warfare agent, although it might have devastating effects. It lacks the essential element of control which I alluded to earlier since there would be no way to predict or control the course of the epidemic that might result. [Emphasis added, here and below.]

REP. SIKES: Tell us the story of our progress and our capability.

DR. MACARTHUR: I want to reemphasize that our policy has been not to develop any contagious agents so that we could control the effects so that they would not "boomerang" on our own people if ever we were forced to use them. Typical examples of diseases caused by

agents we have worked on are tularemia, Rocky Mountain spotted fever, "Q" fever, Venezuelan equine encephalitis. These agents are different from the chemicals in that they are naturally occurring diseases.

Talking about potential offensive agents, I will first restate the constraints I mentioned earlier that we have put on ourselves as a matter of policy to prevent exactly what people have been saying—that there will be a worldwide scourge, or a black death type disease that will envelop the world or major geographical areas if some of these materials were to accidentally escape. That could not possibly happen with the biological agents that we have. That is a constraint that we have put on ourselves.

However, to keep the record straight, we have done a small amount of research on a few agents that do not satisfy this constraint. [This is presumably a reference to US work with smallpox and bubonic plague.] The reason for this is that a potential enemy might use them against us and we have to be prepared to defend ourselves, so we try to develop vaccines and rapid identification systems, for example, for defensive purposes... Also, for most of these agents there is natural immunity. Some people will not be affected because of natural immunity. Second, you cannot use the same agent twice against the same population because after the first attack, the people build up immunity to that agent...

There are two things about the biological agent field I would like to mention. One is the possibility of technology surprise. Molecular biology is a field that is advancing very rapidly and eminent biologists believe that within a period of five to 10 years it would be possible to produce a synthetic biological agent, an agent that does not naturally exist and for which no natural immunity could have been acquired.

REP. SIKES: Are we doing any work in that field?

DR. MACARTHUR: We are not.

REP. SIKES: Why not? Lack of money or lack of interest?

DR. MACARTHUR: Certainly not lack of interest.

REP. SIKES. Would you provide for our records information on what would be required, what the advantages of such a program would be, the time and the cost involved?

MACARTHUR. We will be very happy to.

[The information follows:]

"The dramatic progress being made in the field of molecular biology led us to investigate the

relevance of this field of science to biological warfare. A small group of experts considered this matter and provided the following observations:

- 1. All biological agents up the present time are representatives of naturally occurring disease, and are thus known by scientists throughout the world. They are easily available to qualified scientists for research, either for offensive or defensive purposes.
- 2. Within the next 5 to 10 years, it would probably be possible to make a new infective microorganism which could differ in certain important aspects from any known disease-causing organisms. Most important of these is that it might be refractory to the immunological and therapeutic processes upon which we depend to maintain our relative freedom from infectious disease.
- 3. A research program to explore the feasibility of this could be completed in approximately 5 years at a total cost of \$10 million.
- 4. It would be very difficult to establish such a program. Molecular biology is a relatively new science. There are not many highly competent scientists in the field. Almost all are in university laboratories, and they are generally adequately supported from sources other than DOD. However, it was considered possible to initiate an adequate program through the National Academy of Sciences-National Research Council (NAS-NRC).

The matter was discussed with the NAS-NRC, and tentative plans were plans were made to initiate the program. However decreasing funds in CB [chemical and biological warfare], growing criticism of the CB program, and our reluctance to involve the NAS-NRC in such a controversial endeavor have led us to postpone it for the past 2 years. It is a highly controversial issue and there are many who believe such research should not be undertaken lest it lead to yet another method of massive killing of large populations. On the other hand, without the sure scientific knowledge that such a weapon is possible, and an understanding of the ways it could be done, there is little that can be done to devise defensive measures. Should an enemy develop it, there is little doubt that this is an important area of potential military technological inferiority in which there is no adequate research program."

Postscript: The Pentagon got the requested \$10 million for its research program, though it never officially announced what conclusions, recommendations, or "practical" results ultimately emerged from the effort. But here's the key for those suspicious of the official story: MacArthur said the research could be completed in five years and that a synthetic biological agent "for which no natural immunity could have been acquired" could be produced "within the next five to 10 years." A decade later, people—initially gay American men and shortly thereafter Africans and other populations around the world—suddenly began dying of what subsequently came to be called Acquired Immune Deficiency Syndrome: AIDS.

Technically speaking, despite some overlap in words, it's clear that MacArthur was referring to a bioagent that, because of its laboratory origins, would be "refractory" (resistant) to the human immune system, not one that would damage or destroy it, as AIDS does by attacking crucial T-cells. However, that is a distinction without much difference, because suppressing immune function has the same effect as being resistant to it. Also, since MacArthur was speaking before the invention of such bioagents, he obviously couldn't know what form their immunity resistance would ultimately take. But when all is said and done, the simple fact is that the man's testimony is pretty damn spooky.

THE WORD ON THE STREET

So what ever did happen to the purported AIDS "conspiracy"? We don't hear much about it anymore—not that we ever really did, at least in the mainstream press. Interestingly, despite the lack of coverage, opinion polls over the years have consistently shown that many African Americans (though not a majority) believe AIDS is man-made and was deliberately targeted at black people, just as many believe that the CIA deliberately allowed crack cocaine to enter their communities during the Contra war in the 1980s. Such polls are sometimes cited by the press to show that blacks have a tendency to believe in such presumably false conspiracy theories due to their memory of real ones, like the Tuskegee syphilis experiments. (As in the case of Tuskegee, radiation experiments, Agent Orange, and Gulf War Syndrome, it's generally a long time after the fact before the government fesses up to its role in any such terrible doings, and sometimes it never does.)

Some public figures have spoken out, though black politicians have generally shied away from the subject. In the early 1990s, comedian Bill Cosby said AIDS was "started by human beings to get after certain people they don't like," and director Spike Lee said, "AIDS is a government-engineered disease." More recently, Kenyan ecologist and Nobel Peace Prize winner Wangari Maathai in 2004 declared that HIV was created in a biological warfare lab, though she didn't specify the country. "Us black people are dying more than any other people in this planet," she said. "Why has there been so much secrecy about AIDS? When you ask where did the virus come from, it raises a lot of flags. That makes me suspicious."

But way back, there were the initial stories that emerged out of East Germany in the 1980s that AIDS had been created in a US biowar lab. The fact that the accounts were widely disseminated at the time by the Soviets, particularly in the Third World, made them easy to dismiss as crude disinformation. But the original source for the charges, Jakob Segal, an emeritus biology professor at Humboldt University in East Berlin who died in 1995, was a Russian-Lithuanian Jew who adamantly denied being a state propaganda tool, saying he couldn't convince his East German academic colleagues to even consider his AIDS claims.

"Nobody in the Stasi [East German intelligence] had the technical expertise to have produced such a theory," he said in 1992. "It was my work and mine along, and I refuse to allow a few

sensation-hungry journalists to deprive me of the credit for it."

In brief, Segal asserted that HIV (Human Immunodeficiency Virus), believed to be the cause of AIDS, was actually Visna, a fatal sheep virus, that had been combined in a lab—he pointed to Fort Detrick—with a small percentage of HTLV-1 (Human T-Cell Leukemia Virus). The more detailed genomic analysis of HIV that has since become possible reportedly rules out Segal's hypothesis, and the current establishment view is that HIV is most closely related to the variety of SIV (Simian Immunodeficiency Virus) found in West African chimpanzees, and which somehow "jumped species" into humans sometime in the relatively recent past.

One of the more detailed and fascinating (if rambling) accounts of the Segal saga is a 30-page article titled "Was There an AIDS Contract?" posted on the Internet in 1994 by layman Michael Morrissey, who cites his numerous written exchanges with Segal and other scientists about the possibility of an AIDS conspiracy. Morrissey apparently likes writing about his backand-forths with controversial figures, having penned another discursive online narrative called "My Beef With Chomsky," which involved both AIDS and the JFK assassination.

THE USUAL SUSPECTS

In fact, along with such non-experts, there are a number of interesting characters with MDs attached to their names who regularly crop up when you type AIDS conspiracy queries into your search engine. Here are some of those who appear most often, either in their own writings (some of them quite dated) or cited by others for their supposed expertise:

Dr. Robert B. Strecker: Author of the "Strecker Memorandum," a video peddled online that cited government documents and medical literature to connect AIDS to infected smallpox and hepatitis vaccines administered in Africa and the US in the 1970s. The tale of the Los Angeles internist and pathologist comes complete with two possibly suspicious deaths: his brother and research assistant, Ted, an attorney who supposedly shot himself but left no note, and Illinois state Rep. Douglas Huff, a vocal proponent of Strecker's theories in the Chicago area who died of an overdose of cocaine and heroin. Both deaths took place within weeks of each other in 1988.

Dr. Boyd E. Graves: Links AIDS to biowar research by both the US and Soviet governments. In 1999 he claimed to have discovered a "flow chart" of the Special Virus Cancer Program from 1971 that demonstrated the incremental development of a lab-produced virus designed to undermine the immune systems of people of African descent. He also claims to have been infected by AIDS and then cured by a single injection of tetrasilver teotroxide, which he said was a US patented cure to the disease that's been suppressed by the government, though he also points the finger at an Israeli medical institute and pharmaceutical company.

Dr. William C. Douglas: Includes elements similar to both Strecker and Graves, and like

Graves he seems to believe there was some kind of communist role in fostering AIDS, whether in conjunction with the US or by infiltrating agents into Fort Detrick. Douglas also believes that the UN's World Health Organization essentially created the AIDS epidemic via contaminated smallpox vaccines administered around the world, particularly in African locations, between 1966 and 1977. (See his online article "WHO Murdered Africa.")

Dr. Leonard Horowitz: A doctor of dental medicine with a masters in public health from Harvard, "Len" is a motivational speaker who's been dubbed (or dubs himself) "The King David of Natural Healing vs. the Goliath of Slash, Burn and Poison Medicine." He's published Emerging Viruses: AIDS & Ebola: Nature, Accident or Intentional? and Death in the Air: Globalism, Terrorism and Toxic Warfare under his own Tetrahedon imprint. A self-described Messianic Jew, he claims to have discovered codes in the Bible relating to electromagnetic, tone, and sound frequencies that can be used for healing. He was invited to testify before Congress about the dangers of vaccines and their reputed role in causing autism among children. And according to the Quackerywatch website, while waiting for Armageddon Horowitz lives on an isolated lake in northern Idaho not far from Ruby Ridge, an area famous for its white supremacists and end-timers. Nevertheless, he is a source of interesting information.

Dr. Alan Cantwell: A retired dermatologist and researcher who published dozens of scientific papers through the mid-1980s, many on Kaposi's sarcoma, the "gay cancer." He is the author of AIDS and the Doctors of Death: An Inquiry into the Origins of the AIDS Epidemic and Queer Blood: The Secret AIDS Genocide Plot, which like Horowitz he had to publish under his own imprint. Despite such dramatic titles, by the evidence of his numerous online articles Cantwell is actually one of the more careful writers of his ilk, generally not getting too far ahead of the evidence he cites or uncovers. He believes AIDS grew out of the Special Virus Cancer Program and was most likely deliberately tested on gay men with infected Hepatitis B vaccines in major American cities from 1978 to 1981, as well as in the WHO smallpox vaccination campaigns in Central Africa in the 1970s.

A CERTAIN LACK OF CERTAINTY

Leaving the "fringe" for the moment, it's also interesting to note the amount of uncertainty that exists about the origins of AIDS even among some of the field's top scientists:

Robert Gallo—the disputed co-discoverer of the HIV retrovirus along with French scientist Luc Montagnier—stated in 1987 that the proposed link between the WHO smallpox vaccination campaign and AIDS was "interesting and important," adding that "live vaccines such as that used for smallpox can activate a dormant infection such as HIV."

Matilde Krim, a top cancer virologist and co-chair of the American Foundation for AIDS Research, has raised the possibility that AIDS was caused by the experimental hepatitis-B

vaccine, though unlike Cantwell she believes it was due to accidental contamination.

Harvard virologist Max Essex performed experiments that he says showed that the American strain of HIV spreads more easily via anal tissue, whereas the African strains spread more readily via vaginal tissue. This could explain the higher percentage of African women who become infected, while also raising further questions about the virus' possibly "customized" origins.

Montagnier himself became less of a darling of the official AIDS establishment when in 1990 he declared that HIV by itself was "a peaceful virus" that only became dangerous in the presence of another co-factor: a hard-to-detect, super-tiny, bacteria-like bug called a mycoplasma, which in its normal form is mostly harmless to humans. Similar conclusions were arrived at in separate studies by Shyh-Ching Lo, director of AIDS pathology at the Armed Forces Institute of Pathology, and Robert Root-Bernstein, winner of a MacArthur "genius grant." (No, not that MacArthur.) The work of all three men was ultimately either dismissed or ignored by the AIDS establishment. Gallo, who had also raised the idea of an AIDS co-factor, stopped discussing the subject.

Another of the country's top virologists, Peter Duesberg of UC Berkeley, who isolated the first oncogene (cancer gene) through his work on retroviruses in 1970, has also been cast out as a heretic for saying HIV does not cause AIDS but is merely a coincidental marker for some people in high-risk AIDS populations. He became even more of a pariah when his theory that AIDS infections result from a complex combination of poverty, malnutrition, chronic disease, and other environmental factors was embraced by South African President Thabo Mbeki and other top African National Congress officials. Duesberg maintains that the many conditions lumped together under the rubric of "AIDS" are not sexually transmissible or otherwise infectious, and that AIDS is not viral in nature. He says AIDS (as opposed to HIV) cases in the US and Europe occur almost entirely among long-term intravenous and recreational drug users—primarily gay men. Most shockingly, he contends that when people test positive for the "harmless" HIV retrovirus and are then treated with toxic antiviral drugs like AZT, eventually it actually causes AIDS-like symptoms by compromising otherwise healthy immune systems.

THE POLIO CONNECTION

Smallpox and hepatitis-B vaccines aren't the only possible alternative culprits for the spread of AIDS. In his 1999 book The River: A Journey to the Source of HIV and AIDS, author Edward Hooper marshals much evidence to support his hypothesis that the origin of HIV could be traced to the testing of an oral polio vaccine called Chat, which in the late 1950s was given to an estimated one million people in what was then the Belgian Congo. The theory is that vaccine may been cultivated in kidney cells harvested from local chimpanzees who were infected with SIV, ultimately causing the virus to jump species. However, one of the original manufacturers of Chat announced in 2000 that it had discovered a single leftover phial of the

virus that had been used in the program, analyzed it, and found that it had been made from monkeys and did include HIV or chimp SIV.

Whether or not or not that finding is the death-knell of Hooper's theory, it's certainly not the end of controversy for the polio vaccine. It turns out AIDS was not the only primate virus to make the jump to humans. In a shocking and virtually unknown yet true story, it turns out that virtually every dose of Jonas Salk's oral polio vaccine that was given to 98 million Americans in the baby-boom years between 1954 and 1963 was contaminated with a monkey virus known as Simian Virus #40. Numerous independent studies have shown that SV40 can cause cancer in humans, including rapidly fatal lung cancer (mesothelioma), bone marrow cancer (multiple myeloma), and brain tumors in children. Yet the National Institutes of Health and the Centers for Disease Control down through the years have continued to deny or ignore any such links.

The details of this horrifying story are laid out in a 2004 book, The Virus and the Vaccine: The True Story of a Cancer-Causing Monkey Virus, Contaminated Polio Vaccine, and the Millions of Americans Exposed, by Debbie Bookchin and Jim Schumacher. As if the story couldn't get any worse, the authors report that Lederle Laboratories, the government's sole supplier of oral vaccines from 1977 onward, continued to use monkey kidneys possibly infected with SV40 in its production process until oral polio vaccine was removed from the market as late as January 2000.

AIDS AS POPULATION CONTROL

Getting back to the "fringe," it should be noted that most if not all of the non-establishment AIDS conspiracy theorists cited earlier agree that a primary reason that Western elites would choose to design and loose something like the AIDS pandemic upon the world would be as a radical method of population control. In this context, two more of the "usual suspects" pop up: the Rockefeller family and one of their most loyal servants, Henry Kissinger.

Many conspiracist accounts (at least those that don't go all the way back to the Illuminati or some other such uber-group) start with the Third International Conference of Eugenics held in 1932, coincidentally the same year the Tuskegee experiments began. The sponsors included members of leading families like the Rockefellers, Duponts, Harrimans, Morgans, Kellogs, and even Leonard Darwin, the son of Charles Darwin. The conference unanimously elected as president of the International Federation of Eugenics Organizations one Dr. Ernst Rudin, who later became the architect of Hitler's "racial hygiene" program. Around the same time, as discussed in Part 3 of this series, Dr. Erich Traub was studying bacteriology and virology at the Rockefeller Institute in Princeton, N.J. He would subsequently head Hitler's secret biological warfare laboratory during World War II before returning to the US and helping establish the Plum Island, N.Y., animal disease research lab, which played a shadowy role in the US biowar effort.

Critics then trace the transformation of eugenics—which thanks to the Nazis became taboo in the post-war period—into the more palatable modern concept of population control, as exemplified by the formation of the Population Council by the Rockefeller Foundation in 1952 and the establishment of State Department's Office of Population Affairs in 1966. Finally, along the with the MacArthur testimony, the conspiracists like to point to a slightly less smoking gun: "National Security Study Memorandum 200: Implications of Worldwide Population Growth for US Security and Overseas Interests," released in 1974 under the auspices of Kissinger, then serving as both national security adviser and secretary of state. The document remained classified until 1990. However, while it makes clear that aggressive Third World population-control measures would be necessary to ensure US "national security" in the decades ahead, and points to the likelihood of future famines and disease outbreaks as putting some brakes on population growth, it doesn't hint at any covert strategies to help the process along. Then again, you wouldn't really expect such evidence in an official government document.

THE HEPATITIS-B EXPERIMENTS

Alan Cantwell has written at length about the experimental hepatitis-B vaccine that was given to healthy gay men beginning in 1978 in New York City and shortly thereafter in other major cities like San Francisco, Los Angeles, Chicago, Denver, and St. Louis. In 1979, the first cases of what would become known as AIDS began appearing in Manhattan and subsequently in the other cities as well. Cantwell obviously doesn't think that's a coincidence. He writes in his "The Secret Origin of AIDS in America":

The exclusive introduction of HIV into the homosexual population of New York City is an unprecedented event in the history of medicine. This biologic phenomenon has never been explained scientifically. There is certainly no evidence to indicate white gay men were the only people exposed to sexual contact with Africans, particularly at a time when the epidemic did not even exist in Africa. [Or at least was not recognized—MS] Furthermore, it is biologically impossible for a purported sexually-transmitted and blood borne "virus out of Africa" to infect only young, white, healthy men in Manhattan! Yet the impossible did happen. Despite these facts, we are repeatedly told that AIDS began in Africa, even though the American epidemic began before the African epidemic.

Cantwell also details how the New York Blood Center, which conducted the hepatitis-B campaign, used vaccines developed from chimpanzees—theoretically the source of the SIV strain that mutated into HIV. In 1974, the center switched the chimp hepatitis research from a local New York animal lab to a new primate center called VILAB II in Liberia. "Chimps were captured from various parts of West Africa and brought to VILAB," according to Cantwell. "The lab also prides itself on releasing 'rehabilitated' chimps back into the wild. One cannot help but wonder if some of the purported 'ancestors' of HIV in the African bush have their origin in

chimpanzees held in African primate labs for vaccine and medical experimentation."

Yet another disturbing wrinkle involves Kaposi's sarcoma (KS), the cancer associated with AIDS. "In 1994 it was reported that KS is actually caused by a new 'herpes-8' virus," Cantwell writes. "KS cases were first discovered in the late 19th century, and before AIDS it was a rare form of cancer. Before AIDS, KS was a non-transmissible disease that was never seen in young American men. The finding of a new KS virus indicates that two different viruses were simultaneously introduced into gay men when AIDS began in the late 1970s. No rational explanation has been put forth for this bizarre occurrence."

A VERY SPECIAL VIRUS CANCER PROGRAM

Under the category of leaving the scariest bit for last, we conclude with a look at the aforementioned Special Virus Cancer Program, or SVCP. Started in 1964, its name was shortened to the Cancer Virus Program (CVP) in 1973 "to integrate the program's research activities into the framework of the new National Cancer Plan." It brought together many of the nation's top virologists, biochemists, molecular biologists, and related specialists, including some familiar names: Robert Gallo, Peter Duesberg, and Max Essex. Much of the work was contracted out to private companies like the military-linked Litton Bionetics. The aim was to discover if viruses caused some kinds of human cancer so that vaccines could be derived to prevent them. Eventually, studies focused on two classes of theoretically carcinogenic viruses: RNA-type tumor retroviruses and DNA herpes-type viruses. Officially, however, the program did not succeed in finding any human cancer-causing viruses before it closed up shop in 1980. But shortly thereafter AIDS exploded and the HIV retrovirus was discovered, and a decade later the "herpes-8" virus was found to be the cause of the now transmissible Kaposi's sarcoma.

For most of the "usual suspect" critics cited above, the SVCP/CVP is the holy grail of the whole AIDS conundrum because, while little known and supposedly unsuccessful in its key aim, the program spawned much of the cutting-edge research that would have been necessary to design a new class of contagious cancer-causing agents. While many of the critics have written about its importance (such as Boyd Graves and his famous "flow chart"), to explain the program in more detail we will again turn to the work of Cantwell because unlike others he appears to have done significant original research on the subject. Specifically, he has studied the CVP's annual reports (published by the NIH but hard to find) from the years 1971-74 and 1976-78. As he notes: "Each report is 300-400 pages, and the cumulative volumes refer to thousands of animal cancer virus and genetic engineering experiments."

"The annual CVP Reports must be studied with an awareness that the program became wedded to secret biological warfare research in the early 1970s," Cantwell notes. Officially, the SVCP/CVP became part of the Frederick Cancer Center at Fort Detrick when the Army joined much of its biowar facilities to the National Cancer Institute in 1971. According to the

1970s documents, the new center's main task was "the large-scale production of oncogenic [cancer-causing] viruses and suspected oncogenic viruses to meet research needs on a continuing basis," with a special focus on primate viruses and the successful propagation of "human candidate viruses," defined as animal or human viruses that might cause human cancers. Scientists also studied the role human and non-human primate viruses as "helper viruses" in the production of cancer.

"By the early 1970s, experimenters had transferred cancer-causing viruses into several species of monkeys," Cantwell writes. "Herpesvirus saimiri, a monkey virus discovered in 1967 in the squirrel monkey, has a close genetic relationship with the new KS herpes virus. H. saimiri virus is harmless in the squirrel monkey, but when the virus was forced in the lab to 'jump species' into different animal species, such as the owl monkey, marmosets, and rabbits, it produces cancer in the form of fatal malignant lymphoma. By 1971 Dharam V. Ablahsi of the NCI succeeded in transferring H. saimiri into various cell lines of human origin. Cancercausing cat and hamster viruses were also engineered into macaques and other monkey species."

There's lots more where that came from, though it's pretty gruesome stuff to read, never mind to contemplate it actually happening. Here are some other "highlights" of the program's work:

- * The 1978 report from the Offices of Biohazard Safety of the CVP states: "The inadequate care and handling of animals during the past several years have created a potential for the occurrence of infection of humans with simian microorganisms and cross-infection between species. Such interspecies disease transmission may seriously compromise the integrity of the experiment as well as the health of the experimenter." Really?
- * "By the late 1970s the mixing of animal cancer viruses with human cells to produce new 'xenotropic' viruses was commonplace," Cantwell writes. "The human cells in question were placenta cells from patients with immune disease and cells from leukemia. Xenotropic viruses are viruses taken from one species and transplanted into another species. All these experiments represent 'species jumping' performed in the laboratory." (Shades of The Island of Dr. Moreau.)
- * By 1977 the program was producing "approximately 60,000 liters [15,840 gallons] of tissue culture-grown viruses, propagated in over 40 different cell lines, and distributed in over 1,250 shipments to over 250 participating laboratories throughout the world." (This recalls the US Centers for Disease Control's "foreign exchange program" that shipped disease-causing bacteria and viruses to scores of countries, including Iraq in the 1980s.)
- * A CVP report stated that: "Attempts are being made to chronically infect cell cultures of human epithelial and fibroblast cells and similar cell cultures from non-human primates (marmosets) with simian sarcoma virus, gibbon ape leukemia, and baboon endogenous

virus." Cantwell adds: "A few years later primates in the Africa bush would be blamed for starting AIDS and the KS epidemics."

- * The CVP was interested in acquiring "information and materials from carefully selected patients suffering from immunodeficiency diseases." This is made clear in a progress report from the University of Minnesota entitled, "The search for tumor virus related information in human immunodeficiency patients with cancer." The researchers proposed "continuation of studies linking immunodeficiency, cancer, and oncogenic viruses."
- * Citing an experiment from a 1973 report, Cantwell writes: "Newborn chimps were taken away from their mothers at birth and weaned on milk from cancer virus-infected cows. Some of the chimps sickened and died with two diseases that had never been observed in chimpanzees. The first was Pneumocystis carinii pneumonia (later known as the "gay pneumonia" associated with AIDS); the second was leukemia, a cancer of the blood."
- * "By 1977," Cantwell writes, "the year the experimental hepatitis-B vaccine was being made, scientists in the CVP aimed 'to determine the oncogenic potential of putative human viruses' and 'to begin viral vaccine (conventional or other) testing and immunization programs.' The exact methods by which this was to be accomplished was not stated."

That's not a smoking gun, it's an arsenal of smokestacks.

From a scientifically informed layman's perspective, here's what sticks out from that litany of horrors: If the whole point of the program was to determine if viruses caused some human cancers, why, when no evidence of that emerged, did researchers nevertheless obsessively continue to seek ways to introduce exotic animal viruses into human cell lines, including some with immodeficiency disease? If it didn't occur naturally, why make it occur unnaturally? What's that all about?

"By 1980 the CVP came to an inglorious end with the inability to prove that viruses were involved in human cancer," Cantwell concludes. "More than any other program it built up the field of animal retrovirology, which led to a more complete understanding of how cancer and immunosupressive retroviruses caused disease in humans. The CVP was the birthplace of genetic engineering, molecular biology, and the human genome project. I am convinced the CVP (and not Africa) is the birthplace of HIV/AIDS as well."

WHAT ARE THE ODDS?

Whither the AIDS conspiracy? The evidence seems way more than suggestive. Coincidently or not, the CVP's work kicked into high gear in the years after DARPA's Dr. MacArthur got his go-ahead to proceed with a research program into the prospects for designing synthetic bioagents for which humans would have no natural immunity. AIDS appeared suddenly less

than a decade later—and strangely, more than two decades after that, despite billions of dollars of research, we still have no vaccine. So was there an operational relationship between the CVP and the US military's ongoing biowar "research" program? As noted earlier, the CVP was folded into the Frederick Cancer Center at Fort Detrick, which continues to be the home of the US biowar establishment. Though the main CVP scientists were civilians, it's hard to believe they had no interaction with their military counterparts, who included civilians under contract with the Army.

But the devil in any conspiracy theory is in the hard-to-swallow details. Easier to digest is the idea of an accident. (As noted above, this is what leading virologists Robert Gallo and Matilde Krim have acknowledged as a possibility.) Or more precisely, a number of distinct, widely separated accidents that achieved the same effect. This would involve both the hepatitis-B vaccine given to gay American men and the smallpox vaccine administered to Central Africans (both in the mid- to late-1970s) having been inadvertently contaminated with chimp SIV. Then in both cases the simian virus, which is mostly harmless to chimps, somehow mutated into HIV, which, if we are to accept the current paradigm, is far from harmless to its human hosts.

On second thought, maybe that's not so easy to swallow. In fact, it's much closer to the official story, in that it posits that HIV/AIDS was not bioengineered but was instead a mishandled product of nature. (A related scenario is that some of the frankenstein viruses concocted by CVP researchers and shipped around the world accidentally escaped into the environment, and then somehow initially infected only gay American men and Africans.)

So let's return to the official story. The question then arises: What are the odds that an unprecedentedly deadly disease would "naturally" jump genus from ape to human at the precise moment—the precise decade—in history when man first gained the ability to play god and fiddle with his own genetic code? More specifically, at that exact moment when American (mad?) scientists were mixing exotic viral cocktails that infected immune-compromised human cell lines with simian and feline leukemia and a host of other cancers. (Note to cat-lovers: FIV, or feline immunodeficiency virus, made its first appearance in the 1980s, possibly due to the "inadequate care and handling" of infected lab animals, including cats, cited in the CVP documents above.) Whatever the odds, that remains the official story. A similar long-shot logic is entertained by those who assert that the earth "just happens" to be warming up by natural processes at the exact point in history when our species achieved the dubious ability to alter our planet's temperature.

TOO MANY EVIL PEOPLE

Now for the hard-to-swallow: Let us postulate what is almost unthinkable, at least for most of us. That is, that HIV/AIDS (leaving aside whether AIDS is actually caused by HIV or some other hidden co-factor, like mycoplasmas) was deliberately engineered in a lab and loosed

upon the world for nefarious, eugenics-inspired Kissingerian purposes. One was to target a hated minority: homosexuals. The other was to put a dent in the so-called Third World's burgeoning population, starting with the birthplace of humanity: Africa.

But a cognitive problem now arises, which can be summarized as TMEP: Too Many Evil People. Many people find it hard to believe that such a vast and history-altering conspiracy could occur without at least one confirmed insider having gone public by now. Common sense tells us that too many evil people (many of them doctors) would be necessary to carry out the AIDS plot, and that over the years somebody would have had a crisis of conscience and spilled his guts to a reporter. The average person (indeed, the majority of Americans) can buy a JFK assassination conspiracy because it's simpler and could involve a limited number of plotters, and so would be easier to cover up. But the case for much wider and elaborate conspiracies like AIDS and 9-11 is, well, harder to swallow.

But these are subjective judgments about human nature, and don't prove or disprove anything. We can only try to deal with the facts. It's hard to believe that key CVP scientists like Gallo and Duesberg could have been knowing actors in an AIDS plot (though they may have had their suspicions later), but it's not so difficult to conceive that their work could have been hijacked by those working on the Dark Side of Fort Detrick. Earlier installments in this series dealt with evidence of illegal US biological warfare against North Korea in the 1950s and broad-spectrum biowar attacks on Cuba from the 1960s onward, including the introduction of a virulent form of dengue fever that then spread through the Western Hemisphere. We also explored the possibility that US biowarriors may have had a hand in introducing Lyme disease and West Nile virus into their own country. Despite significant evidence dating back half a century, no whistle-blowers have emerged to confirm any of these "conspiracy theories." This either means that there were no such plots (though the long-standing US biowar attacks on Cuba are a matter of historical record), or that US covert operators—with the assistance of a compliant media, intellegentsia, and government—are better at keeping secrets than we might think.

A similar situation pertains at the international level. Could the UN World Health Organization's smallpox vaccine campaign have been infiltrated by US agents in order to induce an AIDS epidemic in Africa in the 1970s? Though the idea seems outlandish, US intelligence operatives have a long history of infiltrating and co-opting UN agencies and other international bodies. One example, examined in Part 4 of this series, involved the WHO being used as a cover to conduct a massive mosquito-release program in Sonepat, India, in 1975. Though the operation was aborted by bad publicity, it appears likely to have been part of a US biological warfare program designed to lay the groundwork for the subsequent introduction of mosquito-borne dengue fever into Cuba.

A SOUTH AFRICAN CONNECTION?

Oddly, for all the charges thrown around by AIDS conspiracists, hardly anyone seems to have pointed a finger at apartheid South Africa and suggested it may have played a role in propagating the pandemic. The deeply racist ruling Afrikaner elite certainly had an interest in killing as many black Africans as possible. (Remember their nuclear weapons program?) There was also a decades-long history of under-the-table intelligence cooperation between Washington and Pretoria. And it's fairly certain that out of the 250 laboratories that received bioengineered interspecies viruses from the CVP in the 1970s, at least one was in South Africa.

The early 1980s, when the spread of AIDS in Africa first began to be noticed, was a time of particularly warm relations between the Reagan administration and the P.W. Botha regime. It was also a time when the black townships were in full revolt and the security forces responded with every criminal and terrorist tactic at their disposal, including an elaborate biological warfare program that targeted black activists with various diseases, toxins, and poisons.

If AIDS was indeed created in an American lab and introduced into Africa via vaccine programs, one would think the Afrikaner securocrats would have been thrilled to be junior partners in such a genocidal enterprise, particularly in their own backyard. While this is a completely speculative hypothesis, it's interesting to note that although HIV/AIDS is supposed to have emerged in Africa's equatorial rain forest belt, and hence that region should have the highest rate of infection, today South Africa's AIDS epidemic is widely considered the worst on the continent. Almost one in five adults are infected with HIV and an estimated 1,000 deaths blamed on AIDS occur every day. Perhaps the ghost of the white regime is still reaching out from beyond the grave to strangle South Africa's future. Many critics, however, blame this state of affairs on the ANC government's embrace of Duesberg's heretical theories and the shortage of antiretroviral drug treatments.

As the decades pass, the full truth about the origins of this post-modern plague continues to elude us. In the end, after looking at all the evidence, the hypothesis that AIDS is a man-made catastrophe—whether by horrible accident or genocidal design—remains almost too shattering to contemplate, and yet too compelling not to at least consider. So let's end by considering some stark, simple numbers.

According to UN figures, as many as 25 million people have died worldwide from AIDS since 1981, with nearly three million deaths in 2006. There are an estimated one million people living with HIV in the US and roughly half a million Americans are thought to have died of AIDS. Over 42 million people are living with HIV/AIDS around the world, and 74% of those infected are in sub-Saharan Africa. Young people under 25 now account for over half of all new HIV infections, around 6,000 every day. There are currently 14 million AIDS orphans, most of them African, and by 2010 there will be 25 million...

And we thought 9-11 was bad.

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