

UNDERSTANDING THE “WAR ON TERRORISM”: The 2001 Anthrax Attacks: An Analysis

Compiled by Bob Aldridge

When Dr. Bruce E. Ivins died on 29 July 2008, the FBI tried to hurriedly close its seven-year-old investigation of the 2001 anthrax attacks. Ivins was a microbiologist at the US Army Medical Research Institute for Infectious Diseases (USAMRIID) at Fort Detrick, Maryland. Government agents had been pressuring him and his family, using heavy-handed tactics to obtain evidence, but never released his name publicly. A colleague said Ivins was much more sensitive and emotional to things than most scientists. He suffered from depression and had been receiving psychological help periodically since the start of FBI harassment. Friends reported that Ivins started drinking heavily and taking more sleeping and anti-anxiety pills. Previously he had hardly touched alcohol.

In late June 2008 Ivins told friends the FBI had stalked him for months, searched his home twice, tried to bribe his son with the \$2.5-million reward money and a sports car, and had intimidated his daughter by showing her pictures of anthrax victims they said her father caused. Then an incident at UAAMRID in July got him permanently barred from the facility and put him in a psychiatric hospital for several days. He was released July 24th. Five days later he was dead.

Two days after being released from the psychiatric hospital Ivins allegedly took a massive overdose of prescription Tylenol with codeine. He was admitted to a hospital the next day. Two days after that he died. It was officially designated a suicide although no suicide note or other final message was reported. No autopsy was reported. According to the police department and the medical examiner, blood tests “determined that an autopsy wouldn’t be necessary” to confirm suicide. (History Commons, “Context of December 2001-May 2002 ...”)

At the time of Ivins’ death, the FBI had devoted hundreds of thousands of agent-hours to the anthrax investigation with a peak of 35 FBI agents and 15 postal workers following fruitless leads on four continents. They conducted over 9,100 interviews, completed 67 searches, obtained about 6,000 grand jury subpoenas, and spent \$250,000 taking three weeks to drain a pond in a fruitless search for evidence. They paid one suspect \$5.85 million to settle a lawsuit after 6 years of a sluggish and bumbled investigation which ruined the suspect’s career and reputation. To date no arrests had been made. Now, Ivins’ death offered an opportunity to close the case.

I will return to Dr. Ivins but other events must first be discussed so everything will be understood in context.

THE CRIME AND THE WEAPON

September 11, 2001 is recorded in history as the day two commercial airliners crashed into the twin towers of the World Trade Center in New York. A third aircraft smashed into the Pentagon and a fourth crashed in a rural Pennsylvania field. On that tragic day some 2,819 people lost their lives. The suddenness and finality of the attack stunned America. The Bush administration immediately introduced a massive piece of legislation to congress known as the Patriot Act. Legislators were told it should be passed immediately with no changes. Even in the atmosphere of hysteria that prevailed, certain lawmakers balked at the constitutional rights which would be sacrificed by such legislation and started working on revisions. Then the anthrax attack hit America and the Patriot Act was signed into law virtually unchanged. That attack is the crime this paper will analyze.

The Crime.

Just a week after 9/11, with Congress systematically dissecting the administration's Patriot Act legislation, two sets of letters containing anthrax bacteria were delivered by the US Postal Service. The first set, mailed from Trenton, New Jersey on September 8th, arrived at CBS News, NBC News, ABC News, the *New York Post*, and a tabloid in Florida on the 17th and 18th. The only letters retrieved and analyzed were the ones to NBC News and the *New York Post*. Only a trace amount of anthrax was left in the NBC envelope when it was found. Anthrax in the *New York Post* letter was found unopened on October 19th.

Two more letters – the second set – were postmarked October 9th from the same town in New Jersey. Each contained approximately two grams of anthrax powder. One went to Senate majority leader Tom Daschle who was in a key position to obstruct the Patriot Act. Had Daschle succumbed to anthrax, republican governor Bill Janklow of his home state would have appointed a republican to replace him. That would have tipped control of the US Senate back to the republicans.

Another letter went to Senator Patrick Leahy who was chairman of the Senate Judiciary Committee but was missent to a State Department facility and not found until November 16th. Leahy was in a position to strongly influence passage of the Patriot Act, to which he strongly objected. In the case of his demise, another democrat would likely have been chosen. However, Leahy's influence would be removed and a republican candidate in the next election would not have a powerful incumbent to face.

Twenty two people were sickened from anthrax – 11 inhalation cases and 11 cutaneous (which causes skin lesions). Five died from inhaling anthrax, including two postal workers. Another was a reporter at the Florida tabloid, the only fatality from the first wave of letters.

These anthrax attacks accomplished two things. First, they greatly amplified the wave of terror following 9/11 because people realized contaminated letters could be delivered anywhere and there was no place to hide. Second, they intimidated Congress into passing the administration's version of the Patriot Act almost unchanged.

The Weapon.

Anthrax is a disease caused by the *Bacillus anthracis* bacteria. It appears naturally in the earth but can also be cultured and produced as spores. It is not contagious from person to person; one must come in contact with the spores to get the disease. Anthrax spores can be contracted by humans in three ways: inhalation (most deadly – affects lungs and blood stream), ingestion (affects digestive track), or cutaneous (causes skin lesions). It is not easy to become infected with anthrax in its natural form. Certain militaries of the world, however, have refined the anthrax spores to be used as a weapon of mass destruction in biological warfare.

Manufacture of germ warfare weapons in the US started during World War II. Anthrax was a top agent. The No.1 man in that effort was William C. Patrick III. He started on the project in 1951 and invented the current US method of weaponizing anthrax. He holds five secret patents on how to make biowarfare agents disburse in the air and be easily inhaled.

The first step in preparing weapons-grade anthrax is to grow the bacteria in the laboratory. Then the bacteria are removed from the nutrient-rich environment and they transform into spores – dormant, hard-surfaced bodies capable of reproduction when fused with another spore. These spores naturally clump together. To become weapons-grade these spores must be finely milled to particles measuring between 1.5 and 5 microns (thousandths of a millimeter). This allows them to reach deep into the smaller passages of the lungs where the membranes are thinner and the spores can be absorbed into the blood stream. A clandestine US program started in the late 1990s (to be discussed later) achieved a concentration of about one trillion spores per gram of anthrax.

After being milled to weapons grade an additive, or binding agent, has been developed to insulate them from one another to prevent clumping. The US uses silica (silicon dioxide or SiO₂) as the additive. Iraq once used a clay substance called bentonite, which contains aluminum. Only the US, the former Soviet Union, and Iraq are known to have developed additives to produce weapons-grade anthrax.

Weapons grade anthrax also seems to be electrically charged in some manner so that the components repel one another to disburse faster. A clump of weapons-grade anthrax if thrown in the air would fly apart and spread. In about five seconds the particles would become invisible. Neither would there be any smell or taste. Under the right conditions this deadly cloud can spread up to a hundred miles. They do not fall to the ground. This condition can be analogized to smoke particles, only the anthrax spores are much smaller and invisible to the eye.

President Nixon halted US germ warfare activity in 1969 while the Biological Weapons Convention was being negotiated. Decommission of the project was completed in 1972 and all anthrax in the US arsenal was reported to have been destroyed.

FIRST REPORTS

The first reports on analysis of the attack anthrax are important. I will discuss later how these reports are now downplayed and explained away. For that reason the authenticity and credibility of these early reports on the attack anthrax composition should be carefully noted.

Homeland Security Director Tom Ridge on 25 October 2001 said the anthrax in the Daschle letter was “highly concentrated” and “pure.” He said a binding material was used to make the spores spread easier. (History Commons, “Context of October 25-29, 2001...”) Ridge also described the Daschle anthrax as “fine and floaty” – smaller than the anthrax found in the *New York Post* letter. He said the powder recovered from the first wave of letters was coarser and less concentrated, “clumpy and rugged.” (Wikipedia, “2001 Anthrax Attacks”) Others have described it as brown and sandy. Ridge said all the anthrax was of the Ames strain. (See Appendix B)

Four days later Major General John Parker, commander of the US Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick, Maryland, said in a White House press briefing that silica was found in the anthrax from the Daschle letter and the spore concentration was ten times that of the first-wave letter sent to the *New York Post*. A binding agent like silica indicates weapons-grade anthrax and further implies manufacture by a government rather than an individual. Parker, a qualified scientist, said: “I have looked at the specimen under the microscope, both the electron microscope and the scanning microscope, and I can say that the sample was pure spores.” (History Commons, “Context of October 25-29, 2001...”)

In October 2001, *New Scientist* reported: “The anthrax powder sent to Daschle was reportedly milled to a fine particle size of between one and two microns (thousandths of a millimeter). About this same time, US Senator Bill Frist also announced the particle size of the Daschle anthrax was 1.5 to 3 microns wide.” (MacKenzie, 29 October 2001) The Florida anthrax must also have been finely milled, as it caused two pulmonary infections.” (MacKenzie, 18 October 2001) Some consider the Florida anthrax a mid-grade between that sent to the other media and that sent to the Senate.

Still in late October 2001, *New York Times* journalist William Broad interviewed three scientist experienced in germ warfare who had inside information on the anthrax investigation. William C. Patrick, the number one man in the US biological warfare circles who invented the weaponization process, said of the Daschle powder: “It’s free flowing. It’s electrostatic free. And it’s in high concentration.” He added: “It’s fluffy. It appears to have an additive that keeps the spores from clumping.” (Quotated in Broad, 25 October 2001) If anyone were able to describe the anthrax accurately it would be Patrick. In contrast to the pure spores of the Senate anthrax, the anthrax sent to the media “contain low levels of a bacterial contaminant identified as a strain of *Bacillus subtilis*.” (Affidavit in Support of a Search Warrant)

In a later article, referring to a federal science adviser William Broad wrote: “He said the anthrax sent to the Senate contained as many as one trillion spores per gram, a figure confirmed by an administrative official.” (Broad, 3 December 2001) In a 1999 report, William Patrick predicted that

terrorist-produced anthrax would be about 50 billion spores per gram. That being so, the Senate anthrax was 20 times more concentrated than an Al Qaida-type terrorist could produce. Even the old Soviet Union program – according to its former #2 man, Ken Alibek (Kanatjan Alibekov) – could at best produce 500 billion spores per gram which is only half the concentration as the Senate anthrax. With 10,000 spores considered a lethal dose, the two grams of anthrax found in each Senate envelope had the potential to kill 200 million people.

Richard O. Spertzel, a microbiologist who worked 18 years at Fort Detrick before becoming head UN bioweapons inspector in Iraq, added: “There’s no question this is weapons quality. It has all the characteristics – fine particles and readily dispersible.” Al Zelicoff, a biological weapons expert at Sandia National Laboratory, expressed his fears: “These people know what they’re doing. I’m truly worried. They have the keys to the kingdom.” (Broad, 25 October 2001) Spertzel added: “In my opinion there are maybe four or five people in the whole country who might be able to make this stuff, and I’m one of them. And even with a good lab and staff to help run it, it might take me a year to come up with a product as good.” (Gugliotta and Matsumoto, 28 October 2002)

Peter B. Jahrling, senior civilian scientist at USAMRIID and recipient of the Secretary of Defense Meritorious Service Award, briefed a White House meeting in 2001. Present were Attorney General John Ashcroft, FBI Director Robert S. Mueller III, and Secretary of Homeland Security Tom Ridge. Jahrling had observed the anthrax spores through an electron microscope and told them a high-grade additive made the spores more deadly. (Willman, 17 September 2008)

Studies so far were done on what samples could be captured from the Daschle letter. Much of the anthrax it contained was lost because the spores floated away when the envelope was opened. The *Christian Science Monitor* reported that “anthrax found in Senator Daschle’s office was fine enough that it could float easily through the air, rather than simply falling to the ground.” (Marlantes, 18 October 2001) The Armed Forces Institute of Pathology (AFIP) described how scientists at USAMRIID examining the Daschle anthrax “discovered that the highly refined spores floated in the air, making them much easier for potential victims to inhale.” These experiences speak to the fact that the anthrax was finely milled and electrostatic free. They also indicate that an additive was used to keep them from clumping.

The Armed Forces Institute of Pathology (AFIP) used an energy dispersive X-ray spectrometer to confirm the presence of the silica additive. This instrument detects the chemical elements which make up an unknown compound. Silica (silicon dioxide or SiO₂) is made up of silicon and oxygen, and that is what AFIP found in the Senate anthrax. AFIP Principal Deputy Director Florabel G. Mullick said: “This was a key component. Silica prevents the anthrax from aggregating, making it easier to aerosolize.” (Kelly, 31 October 2002) The Leahy envelope was later discovered unopened and greater care was used to preserve its contents.

Sixteen scientists and doctors in the Working Group on Civilian Biodefense published an article in the 1 May 2002 *Journal of the American Medical Association* in which they discussed the anthrax letters as weapons-grade. They discussed the heightened concern about bioterrorism but added: “However, some analysts have questioned whether ‘weapons-grade’ material such as that used in the 2001 attacks (i.e. powders of *B anthracis* with characteristics such as high spore

concentration, uniform particle size, low electrostatic charge, treated to reduce clumping) could be produced by those not supported by the resources of a nation-state.” (Inglesby *et. al.*, 1 May 2002)

Science magazine paraphrased US Environmental Protection Agency scientist John Cirmanec saying the Department of Homeland Security confirmed to EPA “that the perpetrators did, in fact, use silica to weaponize the senate anthrax spores.” (Matsumoto, 28 November 2003)

AL QAIDA – THE FIRST ACCUSED

The immediate reaction of the Bush administration was to link the anthrax attacks to 9/11 and bin Laden. On October 15th President Bush told a press conference in Italy that “there may be some possible link” with al Qaida and added: “We have no hard data yet, but it’s clear that bin Laden is a man who’s an evil man.” (History Commons, “Context of December 2001-May 2002 ...”) In an October 17th National Security Council meeting FBI Director George Tenet suggested al Qaida is involved. On November 7th Bush described the anthrax attacks as “a second wave of terrorist attacks upon our country.” (Wikipedia, “2001 Anthrax Attacks”) But it soon became clear that the powder used was too sophisticated for common terrorists to manufacture. The resources of a nation-state were needed. Iraq was then accused of involvement.

WITH A LITTLE HELP FROM IRAQ

The finely milled and aerosolized nature of the Daschle anthrax would require greater expertise and more expensive equipment than would be available to an Al Qaida terrorist group. To manufacture it would require the capabilities or at least the cooperation of a nation-state. Only the US, the former Soviet Union, and Iraq are known to have produced weapons-grade anthrax, and the former two had terminated their programs. That left Iraq as the likely candidate. Furthermore, if the blame could be placed on Saddam Hussein that would greatly enhance the neoconservative agenda for regime change in that country.

In late 2001 certain factions of the media, possibly tacitly encouraged by the government, were trying to make a case that the anthrax used in the attacks came from Iraq. On 26 October 2001, ABC News’s Peter Jennings said on World News Tonight that “in the letter to Senator Tom Daschle was a particular additive which only one country, as far as we know ... has used to produce biological weapons. That additive is bentonite. ABC News reporter Brian Ross added: “The discovery of bentonite came in an urgent series of tests conducted at Fort Detrick, Maryland, and elsewhere.... It’s possible that other countries may be using it, too, but it is a trademark of Saddam Hussein’s biological weapons program. Jennings concluded the program by saying “there’s been a lot of pressure on the Bush administration inside and out to go after Saddam Hussein. And some are going to be quick to pick up on this as a smoking gun.” (History Commons, “Context of October 25-29, 2001...”)

While UN teams were overseeing destruction of Iraq's biological weapons arsenal during the 1990s, they found that Iraq was using bentonite – a substance found in clay-like soil. Dr. Richard Spertzel said that “discovery was proof positive of how they were using bentonite to make small particles” of anthrax spores. (ABC News, 29 October 2001) It was later conceded that the Iraq-bentonite connection was based on a single sample collected by the UN during the 1990s.

Jennings' newscast was repeated for several days and Ross claimed that the anthrax “was laced with bentonite” and was “nearly identical to samples they recovered in Iraq in 1994.” (History Commons, “Context of October 25-29, 2001...”) On October 28th ABC News said it “has been told by three well-placed and separate sources that initial tests on an anthrax-laced letter ... have detected a troubling chemical additive that authorities consider their first significant clue,” and that “anthrax spores were treated with bentonite, a substance that keeps the tiny particles floating in the air by preventing them from sticking together.” (Ross, et al, 26 October 2001) Brian Ross and ABC News have never revealed those sources which conflict with publicly-revealed sources that say silica was found, not bentonite.

In October, USAMRIID asked the Armed Forces Institute of Pathology (AFIP) to help determine specific components of the Daschle anthrax. Using an energy dispersive X-ray spectrometer, which can detect the presence of otherwise unseen elements, AFIP found that no aluminum was detected which meant there was no bentonite. Later examination of the Leahy anthrax also failed to find aluminum. But journalist Gary Matsumoto was insistent, repeating that “ABC News reported last week that initial tests of the Daschle letter discovered the presence of one of those important additives, bentonite, an anti-clumping agent that makes the spores float through the air and into the lungs more easily, and which United Nations weapons inspectors have associated with Iraq.” (Matsumoto, 1 November 2001) Again, no source was given for ABC's statement which, alone, was now offered as proof that bentonite was present.

Nevertheless, people were frightened and confused after 9/11 and the anthrax attacks fueled that pandemonium. Media stories implicating Saddam Hussein's connection with the anthrax attacks, and to 9/11 by implication, fueled public support for regime change in Iraq. The Iraq connection was further strengthened by liberal reporters, also deluded, who unwittingly supported regime change in their columns and broadcasts. To this day, ABC News has not retracted or corrected its story even though post-invasion inspections showed Iraq had no such weapons and that the anthrax was definitely proven to be the US Ames strain. The few samples of Iraq's former arsenal that were eventually uncovered had nothing in common with the Ames strain.

But let us return to late 2001 when a new bombshell landed that turned the finger-pointing back to the United States.

PROJECT JEFFERSON AND THE CIA

In a 12 December 2001 scoop by reporter Scott Shane of the *Baltimore Sun* exposed a secret US program to develop highly weaponized anthrax. Unknown to the American public, the Army's Life Sciences Division at the Dugway Proving Grounds has been quietly condensing the Ames

strain of anthrax to weapons grade concentration of 1 trillion spores per gram since 1997. The Army immediately confirmed that the FBI was investigating Dugway.

Scott Shane pointed out that the weapons-grade anthrax secretly produced at Dugway “is virtually identical to the powdery spores used in the mail attacks ...” He continued: “Even more provocative than the genetics are the physical properties of the mailed anthrax. While some scientists disagree, many bioterrorism experts argue that the quality of the mailed anthrax is such that it could have been produced only in a weapons program or using information from such a program.” (Shane, 12 December 2001) In other words, the attack anthrax being the Ames strain (the genetics) points to a US origin. But more important, the physical properties (spores per gram concentration) indicate a specific source in the US. Only the Dugway Proving Grounds is believed capable of milling to 1 trillion spores per gram. And who taught them to do that? In the spring of 1998, William C. Patrick, inventor of the process, taught the Dugway people how to weaponize anthrax – and they have been doing it ever since.

Weapons-grade anthrax, derived from the Ames strain, is known to be at two laboratories: the Dugway Proving Grounds in Utah and the Battelle Memorial Institute laboratory at West Jefferson, Ohio. Battelle operates the Dugway biological operations for the Pentagon and the CIA. On December 16th the *Washington Post* reported the FBI was investigating a CIA program. Rather than deny it, the CIA claims its biowarfare program is only to find ways of defending against bioterrorists.

Patrick wrote a secret 28-page report funded by the CIA in February 1999 outlining what to expect in a terrorist attack through the mail. It also suggested what the response of the US military could be. Science Applications International Corp. (SAIC), working on a CIA commissioned Patrick to prepare that report. Although the report predicted a lesser concentration of anthrax, it was close to predicting the quantity of anthrax in each envelope.

On 4 September 2001 – one week before 9/11 and two weeks before the first anthrax letter was mailed – *The New York Times* reported a secret and previously undisclosed CIA program code-named Clear Vision which built an anthrax bomb. This was ostensibly to determine if the American vaccine was effective against a new, genetically modified strain of anthrax developed by the Russians. When attempts to purloin a Russian bomblet containing this strain failed, Project Clear vision was started in 1997 to replicate one. The CIA model was tested twice at Battelle. (Miller, Engelberg, and Broad, 4 September 2001) During Senate Judiciary Committee hearings on 17 September 2008, Chairman Patrick Leahy referred to this 2001 *New York Times* article and what it described as “a program of secret research on biological weapons ... embraced by the Bush administration. Weapons used against Americans were right after that.” (Casey, 18 September 2008) Clear Vision was reported terminated in 2000.

The CIA and Battelle were involved in another more sinister project. Failing to obtain a sample of the Russians’ advanced gene-splicing strain of anthrax, the CIA made plans to duplicate it at Battelle’s West Jefferson lab. In 2001 this project, code-named Project Jefferson, was later taken over by the Defense Intelligence Agency. (Miller, Engelberg, and Broad, 4 September 2001) The number 2 man for the Russian biochemical operation who defected to the US, Ken Alibek, became a consultant on this project.

When Pentagon Spokesperson, Victoria Clarke, was asked during a 4 September 2001 news briefing if any biowarfare projects were secret or top-secret, or if the names of any projects were classified, she answered “Well, I can speak to the Jefferson Project, which has been going on since 1997.... The Jefferson Project, for instance, is one that has been known. Now, the level of detail in some of these projects has not.” (Here and below from Clarke, 4 September 2001) That qualified answer was confined to the Jefferson Project but left the implication there may be others. The dialogue continues:

Q: So the existence of these -- of this project, at least, was not classified?

Clarke: The Jefferson Project. That’s correct.

Q: Right. But the details of the work that was going on under that project may have been classified?

Clarke: Yes.

Q: And you’re not sure when it comes to other projects?

Clarke: Right.

That dialogue, and Clarke’s insistence on keeping her answers strictly confined to the Jefferson project, certainly begs the question of how many other CIA or Pentagon biowarfare projects may be lurking under the veil of secrecy, strongly implies there is more to the picture. Milton Leitenberg of the Center for International and Security Studies at the University of Maryland noted that “the CIA is in this business too, though presumably only through contractors. But we don’t know how many contractors.... We don’t know how many projects.” (BBC News, 14 March 2002)

Furthermore, Battelle’s pharmaceutical division, BattellePharma, is one of a handful of companies developing electrostatically charged inhaler aerosols. In the 1990s, pharmaceutical scientists started experimenting with electrostatic charges of the same polarity to disperse inhalation powders. “BattellePharma’s Web site boasts that the company’s new ‘electrohydrodynamic’ aerosol ‘reliably delivers more than 80% of the drug to the lungs in a soft (isokinetic) cloud of uniformly sized particles.’ Other powders, boasts the Web site, only achieve 20% or less.” This same technique can be applied to germ warfare. “The Senate anthrax spores carried like electrical charges, and some experts believe that they were added deliberately to aid dispersal.” (Matsumoto, 28 November 2003)

After the Iraq invasion the Iraq Study Group searched Iraq for weapons of mass destruction. Its report concluded that Iraq neither possessed nor was seeking weapons of mass destruction, including anthrax. This report coupled with the newly revealed information about Dugway manufacturing weapons-grade anthrax discredited any further accusations concerning Iraq. The source had come home to the United States.

SWITCHING STORIES – THE LONE SCIENTIST THEORY

When Iraq was exonerated the FBI started focusing on a renegade scientist. But to do that, evidence of the silica additive had to be expunged because that process would require the

assistance of a nation-state, and that would point the finger at the USA. I'll briefly run through this sequence of suspects.

Before the secret CIA program to produce weapons-grade anthrax at Dugway was publicly revealed, the FBI had already been investigating that program as a possible source of the attack anthrax. Evidence pointing clearly to a US source for the Daschle and Leahy anthrax was hitting too close to home. A new scenario had to be crafted. In November 2001 the FBI created the scenario of a disgruntled American scientist with access to the US anthrax program as the culprit.

A profile of such a scientist acting alone was cobbled together. To do this certain initial findings had to be reversed and knowledge of silica as an additive had to be expunged from the public mind. History had to be rewritten. Although it would be theoretically possible for a renegade scientist to mill anthrax to a weapons grade concentration, there is no way a lone scientist could obtain the expensive and sophisticated equipment necessary to treat the spores with silica. Consequently, to support the lone scientist theory, the presence of that additive had to be squelched. I will discuss in more detail later how the government tried to reverse former testimony. At this point I will continue with the lone scientist scenario.

By autumn of 2002 FBI scientists were reporting there was "no additive" in the senate anthrax. That, of course, makes the lone scientist theory more credible because adding the additive requires sophisticated equipment possessed only by the government and which could be used only with government knowledge. Ken Alibek said the micrographs of the Daschle anthrax revealed no silica. He added a caveat however: "But I couldn't be absolutely sure because I only saw three to five of these electron micrographs." Richard Spertzel was doubtful: "No silica, big particles, manual milling. That's what they're saying now and that radically contradicts everything we were told during the first year of the investigation." (Matsumoto, 28 November 2003)

In December 2002 the FBI attempted to reverse engineer (work backwards from the attack anthrax to determine exactly how it was made) the Senate anthrax powder to see if it could be manufactured with rudimentary equipment, on a small budget, and without silica. Dugway Proving Grounds performed this work and the project was completed in February 2003. Reporting on the ability to aerosolize the anthrax powder without silica or other additive, scientists working on the project said the effort failed. The resulting powder, when placed in a test tube, failed to float when the tube was shaken. The spores merely fell to the bottom. The conclusion was obvious: if Dugway, with all its expertise and equipment, could not replicate the Senate anthrax without adding silica, then it would be impossible for a renegade scientist working alone to have manufactured the anthrax used in the attacks. Michael Mason, then assistant director of the FBI's Washington field office, verified in September 2003 that after two years of reverse engineering they were unable to re-create the process. (Locy, 29 September 2003)

That wasn't the answer the FBI was looking for. Nevertheless, the lone scientist theory continued to advance.

The First “Person of Interest”

By mid-2002, the FBI claimed to be investigating about 30 germ warfare experts and had searched the homes of a couple dozen. One of these “persons of interest” was Dr. Steven Jay Hatfill, an expert in dry biological warfare agents with access to Fort Detrick. The FBI built a circumstantial case on him including his feeling of hostility toward some federal agencies over losing his security clearance; failing three polygraph tests; bloodhounds allegedly connecting his scent to the anthrax letters (although three of the veteran handlers expressed skepticism); his role in helping to commission a February 1999 secret CIA paper prepared by William Patrick on the risks and characteristics of anthrax spores that might be sent through the mail; and his role in designing a mobile bioweapons laboratory used to train US special forces at Fort Bragg, NC. Designed to show troops what to look for after the 2003 invasion of Iraq, this mobile lab was equipped with a fermenter, a centrifuge, and a mill for grinding clumps into powder. Investigators found no evidence of anthrax having been processed in the mobile factory.

A Hatfill unpublished novel entitled *Emergence*, copyrighted in 1998, also drew FBI attention. It describes a bubonic plague attack on the White House carried out by a Palestinian terrorist who, the Hatfill’s fiction goes, was hired by the Iraqi government. The novel describes the media “whip[ing] the American people into a state of near total hysteria” and ends with a US attack on Iraq and dropping a nuclear bomb on Baghdad. (Quotation in History Commons, “Context of December 2001-May 2002 ...”)

Hatfill, a medical doctor, lived in Frederick, Maryland, and worked for Science Applications International Corp. (SAIC) since late 1998. Prior to that he had worked nearly two years studying protections against deadly viruses at USAMRIID. Earlier he had been in the paramilitary forces of Rhodesia (now renamed Zimbabwe) and South Africa. At USAMRIID Hatfill was introduced into the bioweapons inner circle by William C. Patrick. At age 76 Patrick wanted someone to carry on his work and decided on Hatfill. “He was so gung-ho,” Patrick commented. One bioterrorism expert who watched the friendship develop described it as “like father and son.” (Thompson, 14 September 2003) It was Patrick’s support that got Hatfill the consulting job at SAIC.

The FBI searched his premises twice and followed him 24/7 for months while taking photographs and videotapes. The media was covertly tipped off prior to various searches so reporters and photographers could cover these events to enhance public prejudice. Yet, Hatfill was never charged with a crime. Hatfield was fired by SAIC in early 2002 because the Defense Department suspended his security clearance the previous August and had not reinstated it.

In July 2002 he became associate director of Louisiana State University’s National Center for Biomedical Research and Training but was soon dismissed as a requirement of the government grant, ostensibly because of being on the FBI’s “persons of interest” list. Hatfill has adamantly and publicly denied any connection with the anthrax attacks. He was not a docile suspect but fought back and, as will soon be shown, called the government’s hand.

The FBI was criticized for foot dragging. Dr. Barbara Hatch Rosenberg, a professor of molecular biology and director of the biological warfare division of the Federation of American

Scientists, said in a February 2002 speech at Princeton University that she knew who the anthrax killer is. Her scathing report provided much detail and fit only one person. (Her thesis on the anthrax concentration used in the attack on the US was circulated on 29 November 2001 at the Stockholm International Peace Research Institute in Sweden.) She said the FBI, the CIA, and the White House also know the guilty party. She accused a number of government agencies of having a vested interest in masking the truth, and added: “Either the FBI is under pressure from the Pentagon or CIA not to proceed because the suspect knows too much and must be controlled forever from the moment of arrest, or the FBI is sympathetic to the views of the biodefense clique, or the FBI really is as incompetent as it seems.” (Peters, 16 June 2002)

Nicholas Kristof of *The New York Times* also castigated the FBI for its lack of progress in the investigation. In July 2002 he wrote “the bureau’s lackadaisical ineptitude in pursuing the anthrax killer continues to threaten America’s national security ... Almost everyone who has encountered the FBI anthrax investigation is aghast at the bureau’s lethargy.” (Kristof, 2 July 2002) In August 2002 he identified Dr. Steven Hatfill as a suspect, and wrote: “The authorities’ interest in Dr. Hatfill arises from a range of factors, including his expertise in dry biological warfare agents, his access to Fort Detrick labs where anthrax spores were kept ..., and the animus to some federal agencies that shows up in his private writings. He has also failed three successive polygraph examinations ...” (Kristof, 13 August 2002) Kristof then pointed out that bloodhounds have connected Hatfill’s scent to scent packets preserved from the anthrax letters. On 13 July 2004 Hatfill sued *The New York Times* and Nicholas Kristof because of the defamatory columns and the paper’s refusal to print letters and rebuttals that Hatfill submitted.

English Professor Donald W. Foster – an author, FBI advisor, and forensic linguist at Vassar College – also wrote articles describing such things as how Hatfill forged his PhD diploma to obtain employment at USAMRIID and SAIC. Hatfill subsequently sued Foster, Condé Nast Publications, Reader’s Digest Association, and Vassar College for \$10 million in damages, claiming defamation of character. The case was settled out of court.

On 26 August 2003 Hatfill sued Attorney General Ashcroft and other government officials for “using him as a scapegoat for their failure to make an arrest in the case.” (Hananel, 27 August 2003) He accused them of illegally leaking information that damaged his reputation and violated his privacy. He claimed severe emotional stress from an inability to secure full time employment. He was exonerated on 27 June 2008 when the Justice Department paid a \$5.85 million settlement. The government admitted no wrongdoing but the settlement speaks for itself – Hatfill was either innocent or it was an enormous payoff for silence.

Dead Men Tell No Tales

Now I will return to Dr. Bruce Ivins. He was a microbiologist for over three decades, specializing in immunology. He worked the past 18 years at UAAMRIID and is co-inventor on two patents on manufacturing anthrax vaccine. On 14 March 2003 he was awarded the Decoration of Exceptional Civilian Service by the Pentagon -- the highest award that can be given a civilian employee. For over six years he had played a major role in helping the FBI analyze samples from the anthrax letters.

After Ivins' death the character assassination began. One story is that a social worker who helped counsel Ivins had sought a restraining order to keep Ivins away. The story goes that she received death threats and that during therapy Ivins admitted to his psychiatrist of trying to kill other people; he talked of mass murder and "was extremely agitated, out of control;" he described buying a gun and laying out a "long and detailed homicidal plan;" he said that "because he was about to be indicted on capital murder charges, he was going to go out in a blaze of glory; that he was going to take everybody out with him." (Warrick, 3 August 2008)

Ivins didn't go out that way. The information coming from this social worker and Ivins' psychiatrist paint a completely different picture than that painted by his friends and co-workers. Ivins had told friends that in late 2007 his son, Andrew, was offered the \$2.5 million reward and a sports car if he would provide evidence his father was connected to the anthrax attacks. Likewise, Ivins related that his hospitalized daughter, Amanda, was shown pictures of an anthrax victim and told her father did that. Dr. W. Russell Byrne, a colleague of Ivins, said about the daughter: "It was not an interview. It was a frank attempt at intimidation." (Kiehl, 5 August 2008) Ivins may have been a deeply troubled man but bribery has motivated damaging testimony in the past.

Important to understanding Ivins is what his colleagues thought of him. One colleague said: "They took an innocent man, a distinguished scientist, and smeared his reputation, dishonored him, questioned his children and drove him to take his own life.... He just didn't have the swagger, the ego to pull off that kind of thing, and he didn't have the lab skills to make the fine powder anthrax that was used in the letters." Colleague Norm Covert said: "We're looking at a man with a distinguished 30-something-year career, unparalleled and known around the world.... His career and his reputation are trashed and the FBI still hasn't said what they have on him." (History Commons, "Context of December 2001-May 2002 ...")

Dr. Kenneth Hedlund, the former chief of bacteriology at Fort Detrick said: "I think he's a convenient fall guy. They can say, 'OK, we found him, case closed, we're going home.' The FBI apparently applied a lot of pressure to all the investigators there [at Detrick], and they found the weakest link." Hedlund also pointed out that Ivins lacked the expertise to produce such deadly anthrax. Colleague Dr. Russell Byrne thought Ivins was singled out because of his personal weakness: "If they had real evidence against him, why did they not just arrest him." (Kiehl, 5 August 2008)

The FBI Rushes to Close the Case.

The FBI has all the evidence. All samples investigated are furnished by the FBI. With this evidence held in secret, the FBI has built a circumstantial case against Ivins, as itemized below (my comments in parentheses):

- Ivins submitted false anthrax samples to throw the FBI off. (Are proof and details available or do we have to trust the FBI's word?)
- He couldn't adequately explain the late night hours at the lab around the time of anthrax attacks. (The FBI released documents to substantiate this. However, Ivins' e-mails also indicated he was worried about his anthrax vaccine which was failing. The vaccine he

helped develop contained a substance called squalene which has been attributed as the cause of Gulf War Syndrome. Because of that, soldiers were refusing to be vaccinated and the US Supreme Court upheld their position because the vaccine had not been FDA approved for inhaled anthrax. Ivins could easily have been working overtime on the squalene-free vaccine that was approved in 2006.)

- According to investigators, he tried to implicate co-workers. (No names or events were disclosed.)
- Ivins had a pattern of driving to remote locations to post mail anonymously. (Even if true, the FBI found no evidence that he had been in Princeton when the letters were mailed.)
- He immunized himself against anthrax and yellow fever a few weeks before the anthrax letters were mailed. (There is no mention about when this re-immunization was due.)
- Officials disclosed on 6 August 2008 that Ivins had been restricted from access to biological agents in September 2007. (This was due to his psychological problems which have already been discussed.)
- Ivins had access to Ames anthrax. (Over a hundred scientists had access to anthrax genetically identical to that used in the attack. All have been eliminated from suspicion except Ivins. Why?)
- The envelopes had print defects which were only sold at a few post offices, in one of which Ivins had a mailbox. (All the scientists at Fort Detrick had access to the same post office and they have all been eliminated as suspects.)
- Investigators found the type of envelopes used for anthrax attacks in Ivins' lab. (He probably bought them at the Post Office which had similar print defects as the envelopes used in the attack -- see preceding item)
- Language Ivins used in a 26 September 2001 e-mail to a friend, before the second attack, was similar to a letter in that attack. (He wrote: "I just heard tonight that bin Laden terrorists for sure have anthrax and sarin gas." In the same e-mail he added: "Osama bin Laden has just decreed death to all Jews and all Americans." (History Commons, "Context of December 2001-May 2002 ...") One anthrax letter read: WE HAVE THIS ANTHRAX. Another read: DEATH TO AMERICA ... DEATH TO ISRAEL. Commenting on information of public knowledge hardly indicates foreknowledge.)
- One motive the FBI suggests is that Ivins wanted to bolster sales for the vaccine he helped invent. (Ivins would not have and significant financial gain from the anthrax vaccine patents because Army employees can receive no more than \$150,000 a year. The actual amount is usually much less. Most of the royalties go to the government.)
- Another motive suggested is that being a catholic and against abortion he targeted two pro-choice senators. (Could such an accusation even be considered in court?)
- Ivins was sole custodian of the parent to the genetic mutation of the Ames strain of anthrax used in the attack – code-named RMR-1029. (Genetic identification is the least conclusive regarding the attack anthrax. He could not have treated the spores with silica.)
- Ivins' brother said Ivins acted like he was omnipotent. What does that prove? On the other hand, David Franz, former director of USAMRIID, said he was an enthusiastic guy, always upbeat with a big smile. Ivins' depression and psychiatric problems are not proof of guilt.
- Ivins had acquired equipment to change wet anthrax into dry. (Only wet anthrax is used at USAMRIID. Although it may be technically possible for someone there to manufacture dry anthrax powder, nobody could do so without being detected. And even

if that were true, he still didn't have the equipment or knowledge to finely mill the anthrax or add the silica dispersant.)

US Attorney Jeffrey Taylor admitted that all this evidence is circumstantial. Others point out that the evidence has not been challenged in cross examination nor examined by outside specialists. Ivins' attorney claims that if this went to court he would win the case. And then we must remember, the FBI holds all the evidence including the anthrax powder and envelopes.

It should also be explained in more detail how the other 100 scientists have been eliminated. Almost 200 pages of documents were released to incriminate Ivins. All evidence should be released and independently examined. Senator Charles Grassley called for hearings rather than selective release of a few documents.

REWRITING HISTORY: "BEECHER'S FAMOUS PARAGRAPH"

After the Leahy letter was found on 16 November 2001 the FBI ceased to release information. An exception was when Michael Mason of the FBI's Washington field office said in September 2003 that the attempt to reverse engineer, or recreate the manufacturing process, of the Leahy anthrax failed. The Leahy letter was not opened until a procedure for doing so was developed. Then it was opened at USAMRIID on December 5th. The *Washington Post* reported on December 16th that the Daschle and Leahy anthrax was identical to that produced under the clandestine program at Dugway. However, the Leahy letter being still sealed contained the least contaminated of all the powders recovered. Using that rationale, and in addition to working out a procedure for opening the letter, the FBI cobbled together a new story to feed the public.

While all this regrouping was taking place the FBI remained silent regarding the investigation. Then in August 2006 the silence was broken when Douglas J. Beecher, a microbiologist for the FBI Laboratory's Hazardous Response Unit, published a peer review paper. After the paper was published, the FBI blocked any media interviews with Beecher.

"So why, three years after [Michael A.] Mason's public remarks and a pretty effective gag order, has the FBI chosen to speak out through Beecher's article?" asked one journalist. (Ember, 4 December 2006) Beecher's paper only chronicled the FBI's methodology that uncovered the Leahy letter. That's all it did. It was not a scientific study of the Senate anthrax and its characteristics. Yet Beecher inserted extraneous information in the discussion section at the end of his paper which implied that no special additive was needed for a highly-purified anthrax powder to be free-floating, or aerosolized. He said "a widely circulated misconception is that the spores were produced using additives and sophisticated engineering supposedly akin to military weapons production. This idea is usually the basis for implying that the powders were inordinately dangerous compared to the spores alone. The persistent credence given to this impression fosters erroneous preconceptions, which may misguide research and preparedness efforts and generally detract from the magnitude of hazards posed by simple spore preparation." (Beecher, August 2006) That statement soon became known as "Beecher's famous paragraph."

What “Beecher’s famous paragraph” did was insinuate a misunderstanding of how dangerous the Senate anthrax actually was: its ability to spread in the environment and penetrate deeply into the lungs, and the deadly result from inhalation. (I have already discussed how additives and like electrical charges are used specifically to make the powder significantly more dangerous than simple spores which clump together and do not float in the air.) This first public statement by the FBI since finding the Leahy letter provided no citation or other information to back it up. “The statement should have had a reference,” said L. Nicholas Omston, editor-in-chief of the microbiology journal that published Beecher’s paper. “An unsupported sentence being cited as fact is uncomfortable to me. Any statement in a scientific article should be supported by a reference or documentation.” (Ember, 4 December 2006)

Despite such cavalier statements, FBI public relations events and press releases focused on “Beecher’s famous paragraph” to bolster the bureau’s image and close the anthrax case. Presumably Bruce Ivins would be the fall guy and any embarrassing connection with the US government or its agencies would be covered up. Here are some examples of how this propaganda campaign played out.

On 25 September 2006 the *Washington Post* reported that “the FBI is now convinced that the lethal powder sent to the Senate was far less sophisticated than originally believed ...” Unnamed law enforcement officials confirmed, according to the *Post*, that what “was initially described as a near-military-grade biological weapon was ultimately found to have had a more ordinary pedigree, containing no additives and no signs of special processing to make the anthrax bacteria more deadly.” One scientist “who has extensively studied the tan, talc-like material that paralyzed much of Washington” is quoted: “There is no significant signature in the powder that points to a domestic source.” (Lengel and Warrick, 25 September 2006) Are we playing a shell game here? We started off talking about the Senate anthrax but “tan, talc-like” describes the anthrax sent to the media. Blurring the distinction between the attack anthrax powders may suit the FBI’s agenda but it certainly misinforms the public.

Summing up, the *Post* article emphasized the FBI’s central message: “Specifically, law enforcement authorities have refuted the widely reported claim that the anthrax spores had been ‘weaponized’ – specially treated or processed to allow them to disperse more easily. They also have rejected reports that the powder was milled, or ground, to create finer particles that can penetrate deeply into the lungs.” (Lengel and Warrick, 25 September 2006) “Beecher’s famous paragraph” was quoted to substantiate the no-additive claim. The FBI would not allow Beecher to be interviewed.

FBI public relations experts also hit *The New York Times*. A September 26th article opened with the statement that “an FBI official has reiterated the bureau’s judgment that the anthrax in the letter attacks five years ago bore no special coatings to increase its deadliness and no hallmarks of a military weapon.” Then the article notes that this “statement by the FBI official contradicts an array of assessments over the years about the anthrax attacks ...” “Beecher’s famous paragraph” was quoted of course but the “FBI declined to make available lead scientists in the investigation.” (Broad, 26 September 2006) It should be noted and emphasized here that the term “coatings” seems to have been introduced as a means of deception. The additives that disperse the spores are not “coatings.” Anthrax is a bacteria and coating the spores would kill them.

Saying the spores were not coated is the truth, but the implication *misleads the public into thinking there were no additives*. Please remember that in quotations below that refer to coating of the spores.

The December 4th issue of *Chemical & Engineering News* also played on “Beecher’s famous paragraph” but in a more analytical manner. Nevertheless, the magazine’s presentation seemed to bolster the FBI’s position that the Senate anthrax was pure spores with no additives.

There still remained one damaging piece of knowledge, made public by the FBI, itself, that discredited “Beecher’s famous paragraph.” That was the September 2003 statement by Michael Mason that reverse engineering of the Senate anthrax had failed. If it was not possible for Dugway, with all its expertise and equipment, to duplicate the Senate anthrax, then Beecher’s statement would not be accepted as credible.

Daniel Martin is a microbiologist at Dugway Proving Grounds. Martin told *Chemical & Engineering News* that Dugway did not reverse engineer the Leahy anthrax which “implies that you know exactly what the material is and can replicate the material exactly, step by step.” He said Dugway was only asked “to produce materials to see how they compared with the materials he FBI had in its possession.” He explained that Dugway used the Leahy anthrax as a culture starter to “produce several different preparations using different media, and different ways of drying and milling the preparation,” but never analyzed the Leahy anthrax to determine exactly what it was. (Ember, 4 December 2006) The resulting preparations were used to compare with the Leahy powder but he said Dugway never made any of the comparative analyses.

How good was the powder Dugway could produce on low budget with basic microbiology laboratory equipment? University of Maryland arms control expert Milton Leitenberg attended the December 2001 meetings with the FBI where an exact procedure for analyzing the Leahy anthrax was formulated. He said a former military scientist deeply involved with the investigation told him Dugway could only produce preparations containing “one-fifth the number of spores found in the Leahy powder.” (Ember, 4 December 2006)

This former military scientist also told Leitenberg that Battelle Memorial Institute was asked to reverse engineer the Leahy anthrax. Michael Mason was aware of Battelle’s activity when he made his December 2003 statement. Veteran forensic psychologist Michael Green explains: “The failure of both Dugway and Battelle to produce a comparable product was the basis for the public announcement in the fall of 2003 by Michael A. Mason, then assistant director of the FBI Washington field office, to admit that after more than a year of efforts by two full scale out-in-the-open bioweapons research teams, the FBI had failed to make a comparably powerful product – even without silicon.” (Green, 19 August 2008)

Harvard molecular biologist Matthew S. Meselson, however, agreed with Beecher’s article. At the Washington FBI Field Office in early 2002 he examined what he was told were electron micrographs of the Daschle anthrax. He said “I see no evidence of anything except spores, no evidence of silica nanoparticles ... nothing could be purer than what I saw.” A former military scientist speaking anonymously also looked at the micrographs and said he saw nothing but pure spores. He said it was the first time he had seen spores of one trillion per gram concentration.

But this scientist wasn't really sure about what he saw: "It was never clear to me whether the spores were coated or not, because I heard it both ways." (Ember, 4 December 2006) Still another question mark on what was seen in those electron micrographs is the high spore concentration. When Dugway tried to replicate the Leahy anthrax they could only achieve a concentration of 200 billion per gram – only a fifth of one trillion. So what exactly were Meselson and the anonymous scientist looking at, and where were the spores in those micrographs produced?

After reading the September 25th *Washington Post* article, New Jersey Congressman Rush Holt wrote a searing letter to FBI Director Robert S. Mueller III. Holt expressed deep concern about the lack of progress and added: "As a scientist, it is clear to me that this investigation was bitched from the start. Nothing else can explain why it took the FBI so long to come to the basic determination that the anthrax used in the attacks was far less sophisticated than initially reported. With regard to "Beecher's famous paragraph," Holt said the "FBI should have been able to determine within days of the attack that the anthrax used was not weaponized." He then demanded a classified briefing on the current status of the investigation, and he demanded that Douglas J. Beecher be available for questioning by the House Permanent Select Committee on Intelligence. His closing sentence was: "The importance of this matter goes far beyond this particular case. It goes to the very heart of the FBI's ability to protect America from terrorism." (Holt, 27 September 2006)

Assistant FBI Director Eleni P. Kalisch immediately rejected Holt's demand, saying that "briefing the Intelligence Committee on a criminal investigation would be inappropriate.... the FBI and the Justice Department had decided long ago to stop briefing members of Congress after sensitive, classified information found its way into media accounts citing congressional sources." Holt's office pointed out that "the Intelligence Committee received 'three limited briefings in 2002 and 2003, and no committee member has ever been implicated in leaks.'" (Ember, 4 December 2006)

Iowa Senator Charles E. Grassley was outraged at the FBI's refusal to cooperate with the committee charged with providing oversight. He wrote to Attorney General Alberto Gonzales with a list of questions he wanted answered. He received no answer.

TSK, TSK: SO MANY SCIENTIFIC ERRORS

Early on in the anthrax investigation there were numerous public disclosures of the Senate anthrax having a silica additive and being weapons grade. In order to rewrite history it was necessary to expunge or discredit many of the early findings and public announcements. An unidentified former government official has been quoted as saying that after the attacks "there was no systematic methodology in place to evaluate a biological powder forensically." He said initially studies were "done on the fly" and "a lot of people didn't know what they were looking for." (Ember, 4 December 2006)

That seems like a very irresponsible statement to me. Earlier in this paper I presented statements by various officials and scientists telling the exact characteristics of the powder and what their

examination uncovered. It doesn't take much "systematic methodology" for a scientist to know how to use an electron microscope or energy dispersive technology. They knew what they were looking for and they reported what they found. It is those findings that the government is now trying to discredit.

A good place to start this discussion is when Florabel G. Mullick, Principal Deputy Director of the Armed Forces Institute of Pathology, published an article in the AFIP newsletter saying they had determined the presence of silica when examining the Senate anthrax powder with energy dispersive X-ray spectrometry. Note, particularly, that this observation took place in October 2002. The exact procedure for opening the Leahy letter and examining its contents was formulated in December 2001, a full ten months earlier. So much for there not being a "systematic methodology" in place. Yet in 2006 the AFIP said they made a mistake and the silicon spike they saw was from the element silicon, not from the compound, silica (silicon dioxide).

But if this were true, how did elemental silicon get on the spore surfaces? FBI scientist Dwight Adams in late 2002 cited a paper by Harvard microbiologist Matthew Meselson, published in a 1980 issue of the *Journal on Bacteriology* that reported finding the element silicon in the spore coats of the bacterium *B. cereus* which is closely related to anthrax. But in the years since "no other laboratory has published a report on significant amounts of silicon in the *B. cereus* spore coat, and many bacteriologists familiar with these data consider them an anomaly," and that it may have been due to contamination. (Matsumoto, 28 November 2003)

But even more to the point, how could these trained scientists using high-technology energy dispersive spectrometry make such a grave error?

Recall that back in October 2001 William C. Patrick said the Senate anthrax was free flowing, electrostatic free, and highly concentrated. He added that it's fluffy and appears to have an additive that keeps the spores from clumping. Five years later he said: "The material was good but not weapons grade. You can't make that in your basement. It requires sophisticated equipment." (Broad, 26 September 2006)

In an attempt to explain why the senate anthrax was free floating in the alleged absence of a silica additive some have said the powder was statically charged when it went through the rollers of postal mail-handling machines. This fails to explain why the media anthrax wasn't similarly charged and free-floating.

THE RMR-1029 SPORE BATCH

One of the proverbial unnamed US officials told the *Wall Street Journal* in 2002 that DNA testing had to be reworked to differentiate between variations in the Ames strain. When that can be done it would allow more precise tracking of what lab the attack anthrax came from. This unknown official said they were trying to identify other elements that were in the anthrax powder:

“We’re looking at cations, anions; we’re looking at inorganic matter; we’re looking at sugars ...”
(Schoofs and Fields, 25 March 2002)

CONCLUSION

FBI and Justice Department officials are anxious to close the anthrax case and blame the entire scenario on Bruce Ivins, deceased. That would be very tidy for the government except that Congress, the American public – even the colleagues of Bruce Ivins – wants a better explanation. Especially, they want hard evidence that the anthrax spores were not treated with silica because if they were it would exonerate Ivins. He had neither the equipment nor the expertise for such treatment. Whether they were treated or not is the hinge point for closing the case with Ivins the guilty party. “Beecher’s famous paragraph” was obviously aimed at convincing Congress and the public there was no silica treatment.

But Beecher was called immediately for his unscientific approach of making an absolute statement without justification. Such an off-hand approach, rather than convince people, has raised further suspicion both domestically and internationally. Arms control expert Milton Leitenberg explained that “scientists in the biodefense programs of several nations allied to the US have frequently expressed the suspicion that the US government is embarrassed to identify segments or individuals of the US biodefense community as responsible for the 2001 anthrax events.” (Ember, 4 December 2006)

Dr. Kay Mereish, Chief of the UN’s Biological Planning Operations, offered the obvious solution. She wrote an article titled “Unsupported Conclusions on the *Bacillus anthracis* Spores” which was published in the 1 August 2007 issue of *Applied and Environmental Microbiology* – the same journal in which Beecher’s article appeared. Mereish wrote that “the data supplied in [Beecher’s] paper could not be used for judging the quality of the spores or to support or dismiss conceptions about the presence or absence of spore additives, or about the production engineering used to prepare the spores.” She recalled a September 2006 Counter-Proliferation and Response meeting she attended in Paris in which a scientist who had examined the Senate anthrax “described the anthrax spores as uncoated but said that it contained an additive that affected the spore’s electrical charge.” Mereish concluded her article with a suggestion: “It would be of importance for Dr. Beecher to submit data in support of his conclusions in another paper to establish a sound scientific basis for his arguments.” (Mereish, 1 August 2007) That supporting data should include scanning electron microscope images, energy dispersive X-ray spectra, and energy dispersive X-ray images showing the absence of additives, especially silica or the elements silicon and oxygen. If Beecher cannot produce such evidence it must be concluded that Bruce Ivins is innocent and that blaming him for the anthrax attacks is another cover-up by the U.S. Government.

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APPENDIX A

Some Biographic Information

Alibek, Ken – (a.k.a. Dr. Kanatjan Alibekov) Medical Degree from the Soviet military medical school at Tomsk, with special interest in infectious-disease epidemiology. Doctor of Science Degree in Anthrax for developing the Soviet Union's most potent weapons-grade anthrax (1988). Became acting director of Omutninsk bioweapons-production plant in 1982. Later became First deputy Chief of research and production for the Soviet Biological-Weapons Program – the chief scientist. Alibekov anthrax became operational in 1989. After breakup of the Soviet Union he defected to the United States in 1992.

Beecher, Douglas J. – A microbiologist at the FBI's hazardous materials response unit.

Green, Michael – A forensic psychologist for two decades. He holds doctorates in analytic psychology from UCLA, and in clinical psychology from Texas Tech University. Since 2003 he has focused on US government covert operations and how they affect foreign and domestic policy.

Holt, Rush – Congressman from New Jersey with a doctorate in Physics. He is the only scientist to sit on the House Permanent Select Committee on Intelligence and is chairman of the Select Intelligence Oversight Panel. He held positions as Congressional science Fellow, arms control expert for the US State Department to monitor foreign nuclear programs, and Assistant Director of the Princeton University Plasma Physics laboratory. He received the Science Coalition's Champion of Science Award and was lauded by *Scientific American* as one of 50 national "visionaries" contributing to "a brighter technological future."

Martin, Daniel – a microbiologist in the Life Sciences Division of Dugway Proving Grounds, Utah.

Mason, Michael A. – Executive Assistant Director, Criminal Investigation Division, federal Bureau of Investigation.

Meselson, Matthew Stanley – A Harvard University molecular biologist who has done research on DNA. He has been a consultant on chemical and biological weapons, and has been consulted by the FBI in the anthrax investigation.

Parker, John S. – Received Medical Doctor Degree from Georgetown University (1974). US Army for 37 years, most recently as commanding general of United States Army Medical Research Institute of Infectious Diseases (USAMRIID). Retired as Major General in 2002. Senior Vice President for Enterprise and Health Solutions Sector of Science Applications International Corporation (SAIC) since 2002. Appointments: Special Assistant Secretary of Defense for Medical, Chemical, and Biological Defense; Deputy Assistant Secretary of Defense for Medical Acquisition Logistics and Technology; Homeland Security Coordinating Committee; Science Advisory Board Chairman for ProtoKinetix Inc.

Patrick III, William C. – US Bioweapons Warfare Laboratory (BWL) at Fort Detrick, MD (1951 – 1972). Chief of Product Development Division at BWL responsible for weaponizing an agent (1965 – 1972). Plans and Programs Officer at United States Army Medical Research Institute of Infectious Diseases (USAMRIID) for bioweapons defense (1972 – 1984). Program Analysis Officer at USAMRIID (1984 – 1986). Patrick was on the UN team during the 1990s to inspect Iraq's bioweapons facilities. During the secret weaponized anthrax program at Dugway Proving Grounds during the 1990s he taught personnel how to make powdered anthrax. In February 1999 he wrote a 28-page classified CIA report on how to respond to an anthrax attack through the mail. Awards: CIA Meritorious Citation, Order of Military Medical Merit. Holds five secret patents on how to make biowarfare agents disperse in the air.

Spertzel, Richard O. – Doctor of Philosophy in microbiology from University of Notre Dame (1970). Also has studied veterinary medicine. Has participated in germ warfare research at United States Army Medical Research Institute of Infectious Diseases (USAMRIID) as Deputy for research, Deputy Commander, and other positions.

Senior Biologist for the United Nations Special Commission in Iraq (1994-1998). Testified before the House Committee on Armed Services on 10 September 2002. “His strongly misleading Congressional testimonial about the WMD capabilities in Iraq helped to justify the subsequent US invasion of Iraq. After the invasion, Spertzel was a member of the Iraq Study Group, which found that Iraq was not producing nor planning to produce WMD at the time of the invasion.” (Wikipedia, Richard O. Spertzel)

Zelicoff, Alan P. – Received Medical Doctor Degree from University of Pittsburgh (1979). Employed at Sandia National Laboratories, Center for Arms Control and National Security (1989 – 2003) – as Senior Scientist since 1998. Awards: Sandia Award for Excellence (1992, 1993), Sandia Employee Achievement Award (1995, 1997), Sandia Meritorious Achievement Award (1995, 1998, 2001, 2002), Department of Defense Award for Excellence (1996). Appointments: US Delegation to the Biological Weapons Convention (1991-2000), Technical Advisor to Office of the Secretary of Defense on Multilateral Negotiation and Policy (1991-2003), White House Office of Science and Technology Policy Panel on Bioterrorism (1998-2001), Biological Assessment Team (2002-2004).

APPENDIX B

The Ames Strain of Anthrax

The Ames strain (one of 89 known varieties of anthrax) was derived from an infected cow that died in Texas in 1980. It was cultured at the Texas Veterinary Medical Diagnostic Laboratory, which is part of Texas A&M University. Later it was transferred to USAMRIID. Supposedly, only five laboratories in the world use the Aims strain. Two are government laboratories: the US Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick, Maryland, and Dugway. USAMRIID furnishes the bacteria to a British laboratory caller Porten Down, which in turn provides the material to microbial depositories at Louisiana State University and Northern Arizona University. Their use of anthrax was justified as developing a vaccine to protect soldiers and civilians. For this purpose the so-called wet anthrax is used – not a dry powder – because it is easier to make and safer to use.

Genetic testing proved the anthrax used in the 2001 attacks was the Ames strain, which eliminates any ties with the old US and Soviet germ warfare programs. However, during the investigation FBI officials discovered that the Ames strain had strayed farther afield than previously thought. One official said they had tightened the list to “fewer than 100 locations but declined to elaborate further.” (Schoofs and Fields, 25 March 2002)