TEN YEARS AGO, ANTHRAX ATTACKS–AND JUDY MILLER–HAD HUGE EFFECT ON PASSAGE OF PATRIOT ACT

Ten years ago today, George W. Bush signed the Patriot Act into law. (US National Archives photo)

Ten years ago today, George W. Bush signed the Patriot Act into law in what many consider to be the single biggest blow to civil liberties our country has seen. I will leave it to others to detail the damage done to our rights, but a quick list of that damage can be seen here on the History Commons website. Instead, what I want to focus on is the prominent role played by the anthrax attacks in the passage of the Patriot Act.

Although most would say that the Patriot Act was a direct result of the 9/11 attacks, timeline analysis shows that key events in the anthrax attacks took place during the critical days leading up to passage of the act. The timeline I have assembled here draws on data in timelines prepared by Marcy Wheeler, History Commons (anthrax), History Commons (Patriot Act) and Ed Lake, along with my own contributions.

September 4, 2001 Exactly one week before the 9/11 attacks, Judy Miller disclosed Project

Bacus, in which the Defense Threat Reduction Agency demonstrated that they could construct a functional small bioweapons facility at the Dugway Proving Grounds in Utah for under $1 million. The facility is capable of both growing and weaponizing biowarfare agents.

September 18, 2001 Letters containing anthrax mailed to the New York Post and Tom Brokaw were postmarked one week after the 9/11 attacks. It is presumed that the letter that lead to the death of Robert Stevens of American Media in Boca Raton, Florida was also mailed around this time but the letter itself was never recovered.

September 30, 2001 Robert Stevens begins to feel ill.

October 2, 2001 Patriot Act introduced in Congress.

October 3, 2001 Tom Daschle, Majority Leader, announces that he doubts the Senate will take up the Patriot Act on the one-week timetable Bush administration has requested.

October 3, 2001 Stevens is confirmed to have anthrax.

October 4, 2001 Pat Leahy, Chair of the Senate Judiciary Committee, accuses the Bush administration of reneging on an agreement about the Patriot Act.

October 5, 2001 Stevens dies.

October 7, 2001 The building where Stevens worked is shut down after anthrax spores were found on the keyboard of his computer.

October 9, 2001 Postmark date for higher grade anthrax letters mailed to Tom Daschle and Pat Leahy.

October 12, 2001 Judy Miller receives hoax anthrax letter in her office at the New York Times. (See below for further discussion of Judy Miller and William Patrick)

October 12, 2001 Dick Cheney appears on the PBS Newshour for a long interview. Among other

things, he pushes for passage of the Patriot Act. In response to a discussion about what Americans can do to protect themselves, he says:

> We need to improve our – some of our law enforcement procedures, and we've got legislation pending before the Congress, for example; it's important we get that through. Every day that goes by when we don't have all the tools we think we need to find out who these people are and to run them to ground is one more day when we could conceivably suffer the consequences of undue delay. Call your congressman and senator, tell them that's important legislation, you'd like to see it passed.

October 14, 2001 Known cases of anthrax at twelve individuals, mostly skin infections and arising from the September 18 mailings to media outlets. Lots of media attention.

October 15, 2001 Daschle letter is opened and tests positive for anthrax. [The Leahy letter had been mis-routed and was not discovered until November 16.]

October 24, 2001 House passes Patriot Act by vote of 357-66 with 9 representatives not voting. A breakdown of the votes can be seen here.

October 25, 2001 Senate passes Patriot Act by vote of 98-1, with one not voting. Russ Feingold was the "no" vote and Mary Landrieu was the Senator who did not vote. There was no public debate in either the House or Senate.

October 26, 2001 Bush signs Patriot Act.

Judy, Judy, Judy (and William Patrick) I want to return to the role of Judy Miller. Recall that she published the article disclosing Project Bacus one week prior to 9/11. Part of the reason for publishing that article and several more on the topic of bioweapons was that she and two co-authors had written a book, "Germs:

Biological Weapons and America's Secret War". The publication date of the book was October 2, 2001. One of her primary sources for writing the book was William Patrick, who had headed the United States' offensive bioweapons research in the 1960's at Fort Detrick (yes, the same Fort Detrick where Bruce Ivins worked later). It is clear from Miller's writing that Patrick was a consultant to Project Bacus and almost certainly was the source of information for weaponizing anthrax and anthrax simulants during this time.

In association with the publication of the book, Miller and co-author William Broad also participated in a one hour episode of the PBS science series Nova, which aired November 13, 2001. There is a very chilling interview with William Patrick published in association with the program and there is even video of Patrick dispersing a cloud of an anthrax simulant. In the interview, Patrick discusses his disagreement with Richard Nixon when Nixon unilaterally cancelled offensive bioweapons research in 1969.

William Patrick died just over a year ago. Miller wrote a tribute to him on her website. This part is of particular relevance:

> That was how we met. Bill Broad, a science journalist and then my colleague at the *New York Times*, and I went to see him in 1997 at his comfortable home atop a wooded hill in Frederick, Maryland, not far from the government bio-lab where he had worked for over 35 years. As we sipped tea on his porch and munched sandwiches prepared by his wife, Virginia, his dog, Billy the Kid, tried snatching chips from our plates. Strains of classical music filled the air and hummingbirds buzzed above the bird feeders he and Ginny had set at strategic spots on the terrace.
>
> Then this seemingly cheerful father of two led us downstairs to his basement office, as he had legions of other

> students of the black bio-arts, to give us a PowerPoint tutorial on how germ weapons were made, stored, and distributed. He patiently answered our questions about how bacteria, viruses, and other deadly pathogens could be used as weapons of mass destruction. Near the end of our session, he pulled a garden sprayer out of a green duffel bag and vigorously pumped it several times, producing a large cloud of fine particles that hung in the air like fog. If this were anthrax, he told us, we would all soon be dead. Offering me a memento of our class, he put a vial of the simulated anthrax in my purse and scribbled his home number on the stationery of his one-man consulting firm, Biothreats Assessment. It was topped with an image of the Grim Reaper. A skull and crossbones were engraved on the business card he handed me. Call any time, he said merrily.

With that as background, consider portions of the article Miller wrote describing her experience with the anthrax hoax letter she received. After opening the article by saying the powder in the letter looked like baby powder and smelled sweet, she eventually wrote:

> As I washed my hands and tried to dust off the powder that clung to my pants and shoes, I thought about what Bill Patrick, my friend and bio-weapons mentor, had told me: anthrax was hard to weaponize. To produce a spore small enough to infect the lungs took great skill. Bill knew that firsthand. He had struggled to manufacture such spores for the United States in the 1950's and 60's as a senior scientist in America's own germ weapons program, which President Richard M. Nixon had unilaterally ended in 1969.
>
> /snip/

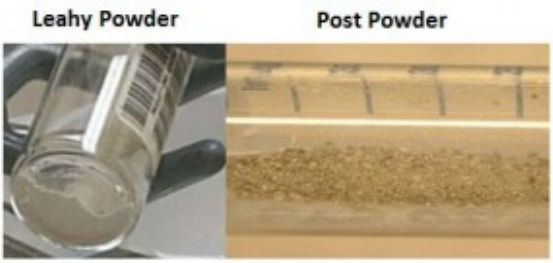
> The other cases, Bill told me, could well have involved a larger spore that was cut with baby powder or another substance to mask the deadly pathogen with a smell that was reassuringly familiar. Anthrax itself had no smell. And it was almost never white.
>
> By now, I was no stranger to this deadly agent. My education had started with Bill Patrick's demonstration of how easily anthrax could be slipped past airport security. Bill had shown me how the fine powder in the small vial he kept on his desk dissolved like magic into the air when the vial was shaken and poured.

In general, Miller's article is a personable account of the fear generated by a potential anthrax attack and how the average person would respond. The problem with this narrative, though, is that Miller should have been far from the average person. She had been researching bioweapons for several years as she wrote her book. She had known Patrick for about four years at the time she received the letter. She had seen his demonstration of how weaponized biological agents can disperse in air. She even had her own vial of simulant as a reminder. And yet, she "tried to dust off the powder that clung to my pants and shoes"? This is the worst possible thing she could have done if the material in the letter had been real anthrax of the quality received by Daschle and Leahy, as it would have dispersed even more spores into air in an enclosed building. Even if the emergency personnel who responded to the office hadn't realized it, Miller should have known that her clothing should have been in the bag that was used to remove the letter and recovered powder.

Did Miller know before she received it that her anthrax letter would be a hoax?

Oh, and one more point. Miller noted that Patrick had told her that anthrax spore

preparations are “almost never white”. Here’s a photo of the white powder from the Leahy letter (the powder in the Daschle letter was identical) alongside the more yellow powder from the New York Post letter. Miller published this account of the hoax letter on October 14, one day before the white powder in the Daschle letter was found.



White powder from the Leahy letter alongside yellower powder from the New York Post letter. (FBI photos)

So, yes, Judy and Bill, anthrax spore preparations are “almost never white”, but when they are, it’s pretty darned important.

DETAILS OF SILICON-TIN CHEMISTRY OF ANTHRAX ATTACK SPORES PUBLISHED; WILLMAN TUT-TUTS

On Saturday, the *Journal of Bioterrorism & Biodefense* published an article (pdf) by Hugh-Jones, Rosenberg and Jacobsen that provides the details of their theory, first described in a McClatchy article, that the anthrax spores employed in the 2001 anthrax attacks were “weaponized” by a process that involved tin-catalyzed polymerization of silicon monomers.

Wasting no time, David Willman was quickly trotted out in the Los Angeles Times on Sunday to tut-tut this latest information as arising from "critics" of the FBI and to provide an outlet for those who unquestioningly parrot the FBI's conclusion from its Amerithrax investigation that Bruce Ivins acted alone in carrying out the attacks.

Shortly after the McClatchy article was published, I provided this perspective on the new revelations it contained:

> The presence of silicon and how it may have gotten into the anthrax material has been a point of great controversy throughout the entire investigation. This question is important because the chemical nature of the silicon and the level at which it is present is presumed to be an indicator of whether the anthrax spores have been "weaponized" to make them suspend more readily in air so that they are more effective in getting into the small passageways of the lungs of the intended targets of the attack. Early in the investigation, Brian Ross published "leaked" information that the spores had been weaponized through addition of bentonite and that Iraq had a weaponization program that used bentonite. This report turned out to be false, as no evidence for bentonite has been found. A more sophisticated type of weaponizing would rely on mixing the spores with nanoparticles of silica (silica is the common name for the compound silicon dioxide) to make them disperse more easily.
>
> The FBI carried out a special form electron microscopy that could identify the location of the silicon in the spores from the attack material. They found that the silicon was in a structure called the the spore coat, which is inside the most outer covering

> of the spore called the exosporium. If silica nanoparticles had been used to disperse the spores, these would have been found on the outside of the exosporuim (see this diary for a discussion of this point and quotes from the scientific literature) because they are too large to penetrate it. No silicon signature was seen on the outside edge of the exosporium. What is significant about the type of silicon treatment suggested in the McClatchy piece is that both high silicon and high tin measurements were found in several samples and that there is an alternative silicon treatment that would involve a tin-catalyzed polymerization of silicon-containing precursor molecules. McClatchy interviewed scientists who work with this process and they confirmed that the ratio of silicon to tin found by the FBI is in the range one would expect if such a polymerization process had been used.
>
> What McClatchy doesn't mention in their report is that it would seem for a polymerization process of this sort, the silicon-containing precursor molecules would be small enough to penetrate the exosporium before being polymerized, or linked together into much larger molecules, once they reached the spore coat. This would mimic the location of silicon incorporated "naturally" into spores.

As the photo above shows, the anthrax spores in the attack material had silicon that was found exclusively in the spore coat and not in the exosporium. This photo is taken from a news article (subscription required) published in March, 2010 in *Science* magazine. I quoted the article in this diary from the same day:

> A more detailed analysis by Joseph Michael and Paul Kotula of Sandia

> National Laboratories in Albuquerque, New Mexico, contradicted that conclusion. Studying individual spores with a transmission electron microscope, they found that the silicon was located within the spore coat, well inside the cell's exosporium (outermost covering). By contrast, when they looked at surrogate spores weaponized with silica, the silicon was clearly outside the exosporium.
>
> But the Sandia study, presented last September to a National Academies panel reviewing the science behind the investigation, still leaves questions. Out of 124 spores from a letter mailed to Senator Patrick Leahy of Vermont, Michael found the silicon-and oxygen signature in 97–78% of the sample. The signature was present in 66% of a sample from a letter to former Senator Tom Daschle and in 65% of spores from a letter sent to the*New York Post*.
>
> Out of nearly 200 other anthrax samples from different labs, none came close to displaying such a prominent silicon signature. The highest, in a sample from Dugway Proving Ground in Utah, was 29%. The researchers couldn't find silicon in the coat of a single spore out of some 300 taken from RMR-1029, the flask in Ivins's lab identified as the source of the bacteria used in the attacks; they concluded that all the silicon had come from the culture.

Note that the Sandia study found that the attack material had silicon present in the spore coats of a higher percentage of the spores than in any samples they analyzed where silicon had been incorporated into the spore coat during culture. Note also that the only "weaponization" treatment employed in the Sandia study was the treatment of spores with silica nanoparticles which coated the exosporium rather than the

spore coat.

As I had suggested after first reading the McClatchy article, the Hugh-Jones *et. al.* article [full citation: Hugh-Jones ME, Rosenberg BH, Jacobsen S (2011) The 2001 Attack Anthrax: Key Questions, Potential Answers. J Bioterr Biodef S3:001. doi:10.4172/2157-2526.S3-001] describes in detail the chemistry of how the silicon monomers could penetrate the exosporium prior to polymerizing on the surface of the spore coat:

> All the evidence in the public domain is consistent with the concept that the spore coats of the attack anthrax were silicone-coated. Silicone polymers are typically formed by hydrolysis of a silicon compound such as dimethyldichlorosilane (or other silanes with similar substituents), which contains no oxygen. Hydrolysis replaces the chlorine atoms with oxygen to form dimethylsilanol, which polymerizes spontaneously to form polydimethylsiloxane, containing silicon and oxygen in equal amounts. The polydimethylsiloxane chains can then be cross-linked ("cured") to form a three-dimensional silicone coating for encapsulation. This step requires an organotin catalyst such as a dibutyltin dicarboxylate.
>
> A procedure of this kind can be envisioned for encapsulating B. anthracis spores. Silane monomers like dimethyldichlorosilane are low-molecular-weight liquids that probably can penetrate the exosporium, the loose-fitting membrane sac that encloses the spore. If silane monomers were added to a suspension of dry spores in an organic solvent, the silane would not contact moisture until it reached the spore coat, where residual moisture diffusing from the core inside the spore would

> cause hydrolysis, followed by polymerization at the spore coat. The polysiloxane chains that would be formed at the spore coat could then be cross-linked to encapsulate the spore. This step would require continued diffusion of moisture from inside the spore, as well as an organotin catalyst. Organotins have low solubility in water but, like silanes, are soluble in organic solvents such as ether, carbon tetrachloride, etc. The ratio of tin to silicon in the attack spores is “about right” for a tin catalyst used to produce a silicone coating, according to a chemist in the field.

As stated previously in the McClatchy article, Hugh-Jones, *et. al.* point out that it would not have been possible to treat anthrax spores with this process at USAMRIID, where Ivins carried out all of his work:

> It would be difficult not to conclude that the spores in the attack letters were prepared for some purpose other than terrorism. Potential procedures that might be applicable for silicone coating of spores, barely touched on here, are complex, highly esoteric processes that could not possibly have been carried out by a single individual. They would require a laboratory with specialized capabilities and expertise not found at USAMRIID, in addition to the possession of the correct strains of B. anthracis Ames associated with flask RMR 1029.

Personnel at USAMRIID all agree that no work with non-aqueous (dry or suspended in organic solvents) anthrax spore preparations is carried out there. The technological ramifications of this are that had Ivins engaged in such work, he would have encountered barriers. His need to decontaminate areas where he worked with dry

spore powder would have been greater than areas where he worked with suspensions of spores in water since dry powder would be more likely to disperse over larger portions of the work area. Furthermore, there is no indication that the hot suite where Ivins worked with spores is equipped to handle organic solvents. Safe removal of volatile solvent fumes [ether fumes are responsible for the explosions and fires frequent in amateur meth labs] while still preventing release of spores would require additional air-handling technology that there would have been no reason to have at the USAMRIID hot suites if only water suspensions of spores would be present. Furthermore, the actual polymerization and curing process would be likely to generate organotin vapors that can be quite toxic if not vented properly.

In response to this publication of the details of how anthrax spores could come to have the silicon and tin content observed, even including the observed location of the silicon in the attack material, David Willman attacked this information in Sunday's Los Angeles Times. Here is how Willman describes various recent questions that have been raised about the FBI's data and conclusions:

> One account came from three scientists — long critical of the FBI — whose questions were the subject of a story in the New York Times. Another came from the nonprofit group ProPublica, the PBSdocumentary unit Frontline and McClatchy Newspapers. The coverage highlighted the lingering antagonism toward the FBI among some of Ivins' colleagues at the Army's biowarfare research center at Ft. Detrick, Md.
>
> In response to the reports, FBI spokesman Michael Kortan said the bureau stood by its conclusion that Ivins was the perpetrator, "based both on the scientific findings and the results of the extensive traditional criminal

> investigation."

Note that Hugh-Jones, *et. al.* are described as "long critical of the FBI" and that USAMRIID personnel who disagree with the FBI are painted as having "lingering antagonism toward the FBI". Willman then trots out an FBI spokesman to assure us that the FBI has no doubts about its work or conclusions.

Willman goes to special pains to address the silicon-tin story. After again calling Hugh-Jones, Rosenberg and Jacobsen "longtime critics of the FBI" lest we forget that phrase, Willman goes on to try to impeach Rosenberg by pointing out that she was an early advocate of the theory that Steven Hatfill had been behind the attacks. But Willman's attempt to negate the silicon-tin polymerization theory falls far short of the science:

> Joseph R. Michael, the investigation's top scientist in charge of determining whether the mailed anthrax was treated with additives, acknowledged that it may never be established how tin or another common element, silicon, got into some of the spores. But Michael said that if tin or silicon had been intentionally added, it probably would have coated the exterior surfaces. He said he found trace levels of tin and silicon only inside the spores.

This is the same Joseph Michael of Sandia National Laboratories who produced the image at the top of this post. Recall that in those experiments carried out for the FBI, Michael and his colleagues found that silica nanoparticles added to spores after they were dried resulted in the silicon signature showing up on the exosporium, rather than on the spore coat, as found in the attack material. Michael's work was carried out before the tin-catalyzed silicon polymerization theory was advanced. In his quote to Willman, it's not clear whether Michael

has not read the Hugh-Jones *et. al.* paper and its explanation of how the silicon monomers would be expected to penetrate the exosporium before polymerizing at the spore coat or if he is just choosing to claim that such a treatment would be unlikely, so that it would be probable that exogenously added silicon or tin would be found on the exosporium. At any rate, Willman's quote makes Michael appear entirely unable to consider theories that conflict with his experiment that included only one among the countless number of techniques that could have been employed to introduce the silicon and tin to the attack spores.

PROJECT BACUS FACILITY AT DUGWAY HAS BOTH FERMENTATION AND WEAPONIZATION CAPABILITIES

CNN informs us this morning that a report card issued by the bipartisan WMD Terrorism Research Center, headed by former Senators Bob Graham and Jim Talent, has issued failing grades to the US in its Bio-Response Report Card (pdf). The primary news from the report card, according to CNN, is that "The United States remains largely unprepared for a large-scale bioterrorism attack or deadly disease outbreak". The grades:

> The report card gave 15 F's,15 D's and no A's in its assessment of current bio-defense capabilities in the United States.

As I was reading the report, however, one short

passage jumped out at me since I have been concentrating recently on the anthrax attacks of 2001. As noted in this diary, I was aware of Judy Miller's reporting from September 4, 2001 on Project BACUS, which involved the construction and operation of a small facility capable of producing bioweapons:

> In a nondescript mustard-colored building that was once a military recreation hall and barbershop, the Pentagon has built a germ factory that could make enough lethal microbes to wipe out entire cities.
>
> Adjacent to the pool tables, the shuffleboard and the bar stands a gleaming stainless steel cylinder, the 50-liter (53-quart) fermenter in which germs can be cultivated.
>
> The apparatus, which includes a latticework of pipes and other equipment, was made entirely with commercially available components bought from hardware stores and other suppliers for about $1 million — a pittance for a weapon that could deliver death on such a large scale.

Miller goes on to claim in this article that this facility "never made anthrax or any other lethal pathogen". Instead, she cites two production runs of biopesticides in 1999 and 2000.

The BACUS facility turns up in the WMD Terrorism Research Center's Report Card. In this case, the source cited is not the New York Times article I cite above, but Miller's 2001 book, *Germs: Biological Weapons and America's Secret War*:

> The first piece of hard evidence regarding the capability of non-state actors to produce sophisticated biological weapons came in 1999 from a Defense Threat Reduction Agency study

> called Biotechnology Activity Characterization by Unconventional Signature (BACUS). The initial purpose of the study was to determine if a small-scale bioweapons production facility would produce an observable "intelligence signature."
>
> The answer was no. The study concluded that even when using "national technical means," it would be extremely difficult, if not impossible, for the intelligence community to detect a clandestine production facility. This conclusion was somewhat expected. The surprise, however, came from an experiment conducted as part of the study. Individuals, with no background in the development and production of bioweapons and no access to the classified information from the former U.S. bioweapons program, were able to produce a significant quantity of high-quality weaponized *Bacillus globigii*—a close cousin to the well-known threat, Anthrax.

From the New York Times article, I had viewed the BACUS site as solely a fermentation site. This disclosure that the facility also is equipped to weaponize the material produced makes it even more likely that this site, or one very similar to it, could have served as the real source of the material used in the 2001 anthrax attacks.

The second important disclosure in this short passage from the report is that it was possible for people "with no background in the development and production of bioweapons" or access to US bioweapons technology could use this facility to produce "a significant quantity of high-quality weaponized" anthrax simulant.

So, now that we know that the BACUS facility was fully operational at the time of the anthrax attacks, that it could produce and weaponize

spores and that it could be successfully operated by individuals without bioweapons expertise, how is it that the entire staff of the Dugway site, where the BACUS facility is located, was eliminated in the Amerithrax investigation? McClatchy reporter Greg Gordon shed some light on that topic yesterday in a live chat put on in coordination with the recent McClatchy/ProPublica/Frontline documentary on the Amerithrax investigation:

> At Dugway, which unlike USAMRIID did make anthrax powder, the FBI examined who was present at work and during what hours on the days before the anthrax was postmarked. The bureau concluded that none of Dugway's researchers could have flown to New Jersey and back during their windows of opportunity

It is clear from this description that the FBI prejudiced the investigation of Dugway personnel by looking only for "lone wolf" actors rather than allowing for the possibility of multiple personnel acting in concert to perpetrate the attacks. Even for a facility as small as BACUS, such an assumption becomes almost ludicrous on its face. I have experience with fermentation equipment such as the 50 liter fermenter installed at BACUS, and it is quite a stretch of the imagination that a single person could prepare the starter culture, prepare and sterilize the fermentation medium, monitor the 18-24 hour fermentation run, harvest and process the spores and then dry and weaponize them without help from another person. In this regard, note that the Report Card quote above implies that it was a team, rather than a single person, who carried out the demonstration run described. The team would not need to be huge, but at least two to three people working together would be my estimate of what it would take to successfully carry out the steps outlined above.

Did the FBI examine records of fermenter use at Dugway in the months preceding the attacks? Did

they investigate whether the BACUS facility had been in use? Did they look for evidence of material being shipped from Dugway to a recipient on the East Coast who could have dropped the letters in the Princeton mailbox?

The combination of the full functionality of the BACUS facility, coupled with the description of the weak criteria on which Dugway personnel were eliminated as suspects in the Amerithrax investigation demands further attention from the FBI. But don't hold your breath waiting for that to happen.

FBI ACCUSED IVINS OF HIDING MATERIAL WHILE FBI HID DATA FROM PUBLIC, IVINS' ATTORNEY

Figure 5.2 *B. anthracis* Colony Morphotype "B"

Photograph of colonies formed by growth of *B. anthracis* cells on blood agar. The colony on the top displays the morphology designated "Type B." The colony on the bottom displays the typical wild-type morphology.

Source: USAMRIID. This image is a work of the United States Army Medical Research Institute for Infectious Diseases, taken or made during the course of an employee's official duties. As a work of the U.S. federal government, the image is in the public domain.

A huge portion of the FBI's circumstantial case against Bruce Ivins in the Amerithrax investigation of the 2001 anthrax attacks relies on the scientific analysis carried out to provide a genetic fingerprint of the anthrax spores in Ivins' RMR-1029 flask as the source from which the attack material was cultured. One of the

central supporting pieces of evidence the FBI touts in this regard is the claim that Ivins submitted a sample to the FBI in April of 2002, labeled as arising from the RMR-1029 flask, but missing the key genetic variants which the FBI used to characterize the material in RMR-1029. Through diligent analysis of thousands of pages of FBI files, a team consisting of McClatchy, ProPublica and Frontline has found that the FBI has not been entirely forthcoming about samples submitted to them by Ivins:

> Prosecutors have said Ivins tried to hide his guilt by submitting a set of false samples of his Dugway spores in April 2002. Tests on those samples didn't display the telltale genetic variants later found in the attack powder and in sampling from Ivins' Dugway flask.
>
> Yet records discovered by "Frontline," McClatchy and ProPublica reveal publicly for the first time that Ivins made available at least three other samples that the investigation ultimately found to contain the crucial variants, including one after he allegedly tried to deceive investigators with the April submission.
>
> Paul Kemp, who was Ivins' lawyer, said the government never told him about two of the samples, a discovery he called "incredible." The fact that the FBI had multiple samples of Ivins' spores that genetically matched anthrax in the letters, Kemp said, debunks the charge that the biologist was trying to cover his tracks.

As a ProPublica article piles onto the material above from McClatchy, the lead prosecutor in the case continues to claim that the one sample lacking variants is a strong indicator of Ivins' guilt and shows that he tried to hide the RMR-1029 flask from further scrutiny:

> Rachel Lieber, the lead prosecutor in a case that will never go to trial, thinks that Ivins manipulated his sample to cover his tracks.
> “If you send something that is supposed to be from the murder weapon, but you send something that doesn’t match, that’s the ultimate act of deception. That’s why it’s so important,” Lieber said.

But did Ivins really manipulate the sample? That is not entirely clear, especially when the microbiology and genetics relevant to the situation are considered along with the new knowledge that three other samples submitted by Ivins did have all of the genetic variants present.

The photo above comes from the National Academy of Science report on their investigation into the scientific approach taken by the FBI in the Amerithrax investigation. The photo shows the subtle difference in the growth habit on agar for a colony arising from a single normal cell (bottom) and a colony arising from a single variant cell (top). For their analysis, the FBI developed DNA tests that could distinguish four specific mutations that could produce four of the colony variants observed. It should be noted that the FBI found that in some cases, more than one different DNA change within the same gene could produce the same apparent colony shape variant, but they chose a single DNA change to track for each colony variant.

What needs to be kept in mind is that these colony variants are present at a low concentration in RMR-1029. As the National Academy report described in its finding 5.5, the analysis did not address the relative abundance of the various DNA types in either the RMR-1029 reference material or any of the investigative samples:

> Finding 5.5: Specific molecular assays were developed for some of the B.

> anthracis Ames genotypes (those designated A1, A3, D, and E) found in the letters. These assays provided a useful approach for assessing possible relationships among the populations of B. anthracis spores in the letters and in samples that were subsequently collected for the FBI Repository (see also Chapter 6). However, more could have been done to determine the performance characteristics of these assays. In addition, the assays did not measure the relative abundance of the variant morphotype mutations, which might have been valuable and could be important in future investigations.

Keep in mind that RMR-1029 contained material produced in multiple fermenter runs at Dugway and a number of flask cultures at USAMRIID. Each individual culture that went into the RMR-1029 had the potential to produce its own spectrum of randomly arising DNA mutations which could have manifested as one of the colony variants chosen for analysis. Note also that the attack material was produced in one or more cultures presumably initiated with material arising from RMR-1029. The way in which the "starter" material was removed from RMR-1029 and how it was used to start the attack culture(s) would determine which variants were carried along, and in what ratios to one another and to the "normal" type. Furthermore, the conditions under which the attack cultures were produced would affect the final spectrum of variants present in the attack spore preparation.

Generally, microbiologists contend with the issue of randomly arising mutations by starting new cultures from a colony derived from a single cell from an older culture. This is achieved most often through use of a "streak plate" such as this one from Wikipedia:

To produce such a plate, the microbiologist starts with a liquid suspension of the old culture and dips into it a small sterilized wire

loop which brings along with it a very small sample of the culture. The loop is then rubbed lightly over a small portion of the surface of a nutrient agar plate. The loop is then lifted off the surface of the agar, the plate rotated a few degrees, and the loop is rubbed lightly over the agar surface again, overlapping with the original area that received the liquid from the starter culture. This process is repeated several more times. After the plate is incubated for an appropriate amount of time, the pattern seen in the photo emerges. Because the concentration of bacteria in the starter culture is high, the region of the plate receiving the liquid directly from the starter culture is completely covered with a "lawn" of bacteria. As the starter bacteria are diluted with the successive rotations of the plate, individual colonies become apparent. The larger colonies separated by relatively large distances from one another can safely be assumed to have started from individual cells being deposited on the agar by the loop.

With that as background, now we can turn to the issue of the samples from RMR-1029 that Ivins provided to the FBI. The actual text of the sample preparation instructions in the subpoena under which Ivins and other researchers were ordered to submit samples is included on pages 76 and 77 of the Amerithrax report:

> 1. Collect each B. anthracis Ames strain stock as per your institutional inventory and personal knowledge.
>
> 2. Prepare a minimum of two TSA [tryptic soy agar] slant tubes per stock by prelabeling with permanent waterproof labels. Include the following information on the label: "B. anthracis Ames strain," with other designators used by your laboratory, date and your lab name. Additional information for each stock shall be provided separately.
>
> 3. A representative sample of each stock shall be used for inoculation of the TSA

> slants. If the stock is an agar culture, do not use a single colony, but rather use an inoculum taken across multiple colonies. Thawed frozen stocks or other liquid suspensions shall be well mixed prior to transfer of inoculum to the TSA.
>
> 4. Inoculate each TSA slant in a zig zag manner over the surface of the agar.
>
> 5. Incubate the slants at 35ºC – 37ºC for 12-18 hr to confirm culture growth.
>
> 6. Individually wrap the slants in packaging materials approved for shipment of infectious select agents in accordance with regulations for the shipment of such materials.

The subpoena went to USAMRIID on February 15, 2002 and on February 27 Ivins prepared and submitted a set of samples. However, on March 28, those samples were rejected by the FBI. From page 78 of the Amerithrax report:

> On or before March 28, 2002 – the date the FBIR was officially up and running and had received its first sample, FBIR001 -Dr. Ezzell's lab technician advised Dr. Ivins and his lab technician that their submissions were not prepared according to the protocol. Specifically, Dr. Ivins and his lab technician used homemade slants as opposed to the commercially available Remel slants specified by the protocol, so the four slants prepared on February 27, 2002 were rejected by the FBIR, and Dr. Ivins was told to resubmit his culture samples on the appropriate slants.

Note that the portion of the protocol that the FBI put into the Amerithrax report did not mention that the TSA slant tubes had to be commercially prepared rather than homemade. Tryptic soy agar is one of the most widely used

culture media in microbiology and it is not at all uncommon for researchers to prepare their own slants, as many laboratories go through very large volumes of both petri dishes and slants with TSA.

Ivins resubmitted samples on April 10. From the ProPublica article:

> In April 2002, Ivins prepared a third sample from RMR-1029. This time, his lawyer said, he plucked a sample using a technique called a "single colony pick," a method biologists use to maintain purity when growing bacteria. Ultimately, this sample tested negative for the morphs. Prosecutors said they're not even sure that the sample Ivins submitted came from the flask. If it did, they said, he obstructed justice, since their subpoena instructed scientists to capture diverse samples of spores that would be sure to reproduce any morphs. Ivins told investigators he'd followed standard procedures for microbiologists when he sampled just one colony.

The Amerithrax report is vague about just what instructions, if any, were provided to Ivins when he was preparing his original sample:

> On February 27, 2002, one of the FBI Special Agents heading up the scientific side of the investigation received a telephone call from Dr. Ivins regarding the submission. This agent no longer has an independent recollection of the telephone call from Ivins, but his contemporaneous notes from the call reflected that Dr. Ivins identified himself as a research microbiologist and provided his telephone number and facsimile number. Dr. Ivins also identified which cultures of B. anthracis he had in his possession, though RMR-1029 was not listed. One of

> the cultures noted, however, was “1987 spores fm Dugway,” which is likely a reference to RMR-1029 with an incorrect date of 1987 instead of 1997. The agent noted: “will set up slants per subpoena today,” referencing Dr. Ivins. Given the notation of Dr. Ivins’s fax number and this statement, this agent believes that he faxed the protocol to Dr. Ivins that day for use in preparing his submissions.

Again, it seems important to me that the version of the protocol the FBI chose to insert into this section of the Amerithrax report does not have the instruction to use a commercial TSA slant. Is there another version of the protocol? Was that other version in the subpoena itself? [I will attempt to track down the actual subpoena, but the FBI document dump is not indexed.] Depending on how carefully Ivins reviewed the protocol instructions in April for his resubmission, and possibly which version of the protocol he may have reviewed, it is not all that surprising Ivins would rely on a single colony isolate for the RMR-1029 sample he submitted. Admittedly, the instructions in the Amerithrax report specifically state “liquid suspensions shall be well mixed prior to transfer of inoculum” and RMR-1029 was a highly concentrated liquid suspension. However, the same section also states “If the stock is an agar culture, do not use a single colony, but rather use an inoculum taken across multiple colonies.” This part is really sloppy, as “multiple colonies” normally would be interpreted to be as few as three or four and most likely not more than ten. Sampling in this way would be very likely to miss most if not all of the morphological variants present at low concentration, so sampling “multiple colonies” in this way would almost certainly give the same result as picking a single colony, is Ivins is believed to have done.

The ProPublica article points out that just

before he submitted the homemade slant, Ivins had been discussing with the FBI the possibility of using DNA analysis to type the morphological variants and to use that information as a tool in identifying the source of the material used in the attacks. Note that this first sample he submitted after the discussion had all the variants present, but was rejected by the FBI. Although we will never know why Ivins used a single colony for the April submission, it could be as simple as him being busy and not looking back carefully at the instructions. It also is very likely that Ivins (and the other researchers submitting samples) was not told the exact nature of the analyses to be carried out. The DNA typing that eventually was carried out along the lines that Ivins had suggested above had not yet been developed in 2002 when he submitted this sample. If he suspected that DNA analysis was to be carried out, using a single colony would have been the logical choice, since a mixed population could produce ambiguous results in DNA sequencing. However, the fact remains that three out of four samples the FBI got from Ivins had the morphological variants present, so their continued insistence that the one sample lacking them is evidence of his guilt is hard to fathom.

FBI’S LONE WOLF CASE AGAINST IVINS CONTINUES TO CRUMBLE

Back in May, McClatchy provided new information that added signficant doubt to the FBI’s accusation that Bruce Ivins worked alone in the 2001 anthrax attacks. The key information McClatchy reported was that in addition to the already known abnormally high silicon content in

the spores found in the attack material, high concentrations of tin were often found in association with the silicon. They then went on to provide convincing evidence that this unique chemical fingerprint could have come about from a process in which a tin-catalyzed polymerization of silicon-containing precursor molecules was employed to confer on the spores their unique properties which allowed them suspend very easily in air. The key point in this observation is that this highly sophisticated chemical treatment of the spores requires both expertise and equipment that Ivins did not have, making it impossible for him to have carried out the attacks alone if the spores were indeed treated with this process.

This morning, William Broad and Scott Shane continue this thread of argument in a New York Times article. Broad and Shane report that the scientists who first raised the tin-silicon combination issue now have a scientific article coming out in the Journal of Bioterrorism & Biodefense:

> F.B.I. documents reviewed by The New York Times show that bureau scientists focused on tin early in their eight-year investigation, calling it an “element of interest” and a potentially critical clue to the criminal case. They later dropped their lengthy inquiry, never mentioned tin publicly and never offered any detailed account of how they thought the powder had been made.
>
> The new paper raises the prospect — for the first time in a serious scientific forum — that the Army biodefense expert identified by the F.B.I. as the perpetrator, Bruce E. Ivins, had help in obtaining his germ weapons or conceivably was innocent of the crime.

Here is how I described the science behind the current question when the McClatchy article was published:

> The FBI carried out a special form electron microscopy that could identify the location of the silicon in the spores from the attack material. They found that the silicon was in a structure called the the spore coat, which is inside the most outer covering of the spore called the exosporium. If silica nanoparticles had been used to disperse the spores, these would have been found on the outside of the exosporuim (see this diary for a discussion of this point and quotes from the scientific literature) because they are too large to penetrate it. No silicon signature was seen on the outside edge of the exosporium. What is significant about the type of silicon treatment suggested in the McClatchy piece is that both high silicon and high tin measurements were found in several samples and that there is an alternative silicon treatment that would involve a tin-catalyzed polymerization of silicon-containing precursor molecules. McClatchy interviewed scientists who work with this process and they confirmed that the ratio of silicon to tin found by the FBI is in the range one would expect if such a polymerization process had been used.
>
> What McClatchy doesn't mention in their report is that it would seem for a polymerization process of this sort, the silicon-containing precursor molecules would be small enough to penetrate the exosporium before being polymerized, or linked together into much larger molecules, once they reached the spore coat. This would mimic the location of silicon incorporated "naturally" into spores.

In today's article, Broad and Shane report that both Alice Gast, who chaired the National

Academy of Science panel that reviewed the FBI's scientific work and Nancy Kingsbury, the head of an ongoing Government Accountability Office analysis, agree that the silicon-tin issue is worthy of further investigation.

In my ongoing analysis of the known scientific facts surrounding the anthrax attacks, I have been insistent that further attention needs to be paid to secret government laboratories as the potential real source of the attack material. Broad and Shane appear to be headed in that same direction:

> If Dr. Ivins did not make the powder, one conceivable source might be classified government research on anthrax, carried out for years by the military and the Central Intelligence Agency. Dr. Ivins had ties to several researchers who did such secret work.

Note that since Ivins "had ties" to several researchers within these classified facilities, that opens a direct route by which such a facility could have received a sample from Ivins' RMR-1029 flask which has been identified genetically as the likely precursor from which the attack material was cultured.

We also learn this morning that on Tuesday evening, the PBS series Frontline will air an episode produced in cooperation with McClatchy and ProPublica. This report will center on the tremendous pressure the FBI applied to Ivins and how such pressure "can shred an individual's life":

> According to this hard-edged report done in partnership with McClatchy Newspapers and Propublica, the FBI did more than zero in. Under tremendous pressure to solve the case that started in 2001 with anthrax mailed to U.S. senators and network anchors, the agency squeezed Ivins hard – using every trick in the book to get a confession out of him even

> as he insisted on his innocence to the end.
>
> Ivins was a troubled guy with some distinctive kinks, the report acknowledges, but even FBI consultants in the case now admit that the agency overstated its evidence and never found a smoking gun to prove the researcher's guilt. In fact, evidence was revealed last summer that shows Ivins did not have the equipment needed to make the powdery kind of anthrax sent through the mail. That didn't stop the FBI then – or now – in acting like it found its man.

Even as both scientists and journalists poke gaping holes in their now-closed investigation, the FBI continues to stand firm in its position that Ivins acted alone in the anthrax attacks, and their spokesman reiterated this position to Broad and Shane. Given the apparent momentum of the scientists and journalists, though, the FBI's position begins to look more and more like something Saddam Hussein's infamous "Baghdad Bob" would spout.

CNN CARRIES DOJ WATER IN REPEATING WEAK AMERITHRAX ACCUSATIONS AGAINST IVINS

In an article published on CNN.com on Saturday and a program aired Sunday evening, CNN does their best to lend credence to DOJ's shoddy work that resulted in the unsupported conclusion that

Bruce Ivins acted alone in the anthrax attacks of 2001. Remarkably, in their effort to shore up DOJ's weak evidence, CNN chose to emphasize one of the weakest links used to tie Ivins to the attacks.

The article and program center on Ivins' apparent fixation on the Kappa Kappa Gamma sorority. One former object of Ivins' attentions, researcher Nancy Haigwood, is relied upon almost exclusively for making the leap from Ivins' obsession with the sorority to his role in the anthrax attacks. The article relates the early interactions between Haigwood and Ivins:

> Haigwood had met Bruce Ivins in the mid-1970s during graduate school at the University of North Carolina at Chapel Hill. She recalled his incessant questions about her sorority, Kappa Kappa Gamma.
>
> Having joined the sorority as an undergraduate, Haigwood stayed involved as the adult adviser at the UNC chapter. Ivins, she says, always asked her for information about Kappa Kappa Gamma.
>
> "Every time I talked to him, nearly, he would mention it," says Haigwood. "And finally I said, 'You know, Bruce, that's enough!'"

As time went on, Ivins continued to contact Haigwood and apparently submitted a false letter to the editor of a newspaper under her name and vandalized her car. Haigwood began to suspect Ivins in the attacks because of an email he sent to her and others in November, 2001 highlighting his work with the anthrax isolated from the attacks. In one a photo in the email, he is handling culture plates without gloves, a break of containment protocol for working with such dangerous material. Haigwood felt that by sending out this photo, Ivins was emphasizing his immunity to anthrax because he had been vaccinated.

In January of 2002, the FBI emailed members of the American Society of Microbiology, asking for help in identifying suspects in the attack. Only Haigwood replied to this request and she submitted Ivins' name.

Once the FBI finally got around to concentrating on Ivins as their primary suspect, they had to undergo some very significant contortions in order to incorporate the Kappa Kappa Gamma obsession into the "evidence" of Ivins' guilt:

> Prosecutors were convinced they had solved a crucial aspect of the mystery: why the anthrax letters were mailed from Princeton, New Jersey. The nondescript but heavily contaminated drop box was on Nassau Street – across from Princeton University.
>
> It had taken several years from the time Nancy Haigwood first contacted the FBI about Bruce Ivins for investigators to make what they believe to be the critical connection:
>
> The mailbox on Nassau Street was just a few doors from a building that leased office space to a sorority: Kappa Kappa Gamma.

That's it: according to the FBI, Ivins has to be the guilty party and his Kappa Kappa Gamma obsession led him to drive about three and a half hours from where he lived and worked, in order to mail the anthrax letters from a mailbox a few doors away from an office space rented by the sorority.

But this shaky claim already has been thoroughly destroyed. In this post from August, 2008, Marcy showed that Ivins' work records—from data released by the FBI—indicate that it would not have been possible for him to make the round trip to Princeton and put the letters in the mailbox with them getting the appropriate postmark:

> **It would not be possible** for Ivins to have mailed the anthrax. According to my calculations above, the window during which Ivins could have put the letter in the mailbox on September 17 was from 10:25 to 1:35. But here's what the FBI itself says about the window in which the letter was mailed:
>
> > The investigation examined Dr. Ivins's laboratory activity immediately before and after the window of opportunity for the mailing of the Post and Brokaw letters to New York which **began at 5:00 p.m. Monday, September 17,2001** and ended at noon on Tuesday, September 18, 2001. [my emphasis]
>
> In other words, had he mailed the anthrax when they're arguing he did, the letter would have been picked up at the 5:00 PM pick-up (if not an earlier one—often boxes have a mid-day pick-up as well), and post-marked on September 17, not on September 18.

When DOJ adjusted their claims on the mailing slightly, Marcy was able to point out that adjustment also was faulty.

Also not explained by DOJ or CNN is why Ivins chose to go all the way to Princeton and use a mailbox near an office (where there likely would have been employees of the sorority but few if any undergraduate members) when there are other Kappa Kappa Gamma chapters closer to where Ivins lived:

> All of which ought to raise the stakes on the FBI's really dubious explanation for why Ivins purportedly mailed the anthrax in Princeton. After all, there are Kappa Kappa Gamma chapters at George Washington in DC, at Johns Hopkins in

> Baltimore, and Washington and Lee in Lexington, VA—all much closer to Ft. Detrick than Princeton. So what's the explanation for driving to Princeton (twice), when Ivins could have associated the anthrax mailing with KKG which much less effort if he had mailed it from any of a number of other schools.

It's a real mystery why CNN chose to try to shore up DOJ's weak case against Ivins. In their defense, they do include these two paragraphs in the online story:

> Ivins denied having anything to do with the anthrax letters. And investigators had no direct evidence linking Ivins to the crime: no DNA on the letters, no fingerprints, no eyewitness.
>
> "How [the anthrax] was made, how it was prepared, where it was done, over what period of time – there's a total void of evidence," Ivins' attorney, Paul Kemp, said in a recent CNN interview.

Those weaknesses, however, were simply brushed aside by CNN as they happily joined DOJ in making the leap from Ivins' harassment of Haigwood to making the Kappa Kappa Gamma obsession a central part of their "proof" Ivins carried out the anthrax attacks entirely on his own.

Because DOJ has officially closed the Amerithrax investigation, it is highly unlikely that the true culprit or culprits in this attack will ever be known. CNN, however, is doing its part to make sure the DOJ's unsupported conclusion is cemented in the minds of the low information public.

FBI DOESN'T CONSIDER AMERITHRAX AMONG ITS WMD "HIGHLIGHTS"

The FBI's WMD Center turned 5 on Tuesday and to celebrate, DOJ has released an interview with Dr. Vahid Majidi. (Part One, Part Two)

The interview is not all that interesting. I'm much more interested in the list of WMD cases Majidi offers as the successes the Directorate has had in the last five years. They are:

- Jirair Avanessian, Farhoud Masoumian, and Amirhossein Sairafi, conspired to ship certain prohibited technologies—notably, vacuum pumps and pump-related equipment—to Iran.
- Jeffrey Don Detrixhe, for possessing 62 pounds of sodium cyanide he intended to sell to "Fat Bob," a member of the Aryan brotherhood; Detrixhe was captured using an informant, though he did obtain the sodium cyanide on his own.
- Bechtel Jacobs employee Ron Lynn Oakley, for trying to sell uranium enrichment fuel rods to a person he thought was a foreign agent.
- Roger Von Bergendorff, for possessing ricin (and an Anarchist Cookbook to learn to make it).

- The “Newburgh Four,” for plotting to attack synogogues in NY; the plot was hatched by a notorious FBI informant who offered $250,000 for their involvement in the plot.
- Khalid Ali-M Aldawsari, for obtaining materials to make explosives to use against American targets.
- Michael Finton (aka Talid Islam), for attempting to bomb an Illinois Courthouse; the plot was a sting set up by an FBI informant, and the bomb was never live.
- Hosam Smadi, for attempting to bomb a Dallas skyscraper; the plot was a sting set up by FBI undercover agents, and the bomb was never live.
- Michael Crooker, for possessing ricin and threatening a Federal prosecutor (including by invoking Tim Mcveigh); an earlier prosecution on firearms possession was overturned.
- Najibullah Zazi, for attempting to use TATP to attack the NYC subway.
- The Hutaree, for attempting to use explosives to attack the government.

Just about all these cases were plead. And, as the list makes clear, a number of the cases (with the exception of the Zazi and Aldawsari, those involving Islamic terrorists) were stings built by informants and/or undercover agents. The "real" plots were just as likely to be launched by right wing terrorists as by Islamic terrorists.

Notice what's not on this list, though. In addition to Mohammed Osman Mohamud (another plot created by an FBI sting) and Kevin William Harpham (the alleged MLK bomber) and a number of others, these WMD successes don't include Amerithrax, by far the biggest investigation into WMD in the last five years.

The interview makes just one reference to a potential anthrax attack:

> **Q. What about all those white powder letters?**
>
> **Dr. Majidi:** Most turn out to be hoaxes, and they require a lot of investigative resources, but we have to investigate each and every incident. You never know when one of them will be real.

In a different inteview, Majidi points to the FBI's investigation of hoax letters—but not the real ones—among the Directorates' work.

> If you remember, after 9/11 there was a rash of hoax letters that contained white powder sent to various recipients including to U.S. legislators. People were worried about the spread of anthrax and other disastrous outcomes. Because of our work at the WMD Directorate, we realized a high rate of success in prosecuting those who sent the letters.
>
> These threats were insidious because they terrorized people, closed down businesses, and essentially stopped the business of governing the United States until the FBI could investigate. It

> involved a tremendous amount of local and federal resources, and at the same time took those resources away from other critical law enforcement and investigative needs. It cost taxpayers money, harmed businesses, essentially slowed down our society, and created measurable panic and insecurity.

No mention—in this interview or the earlier one—of the letters that didn't end up being a hoax.

And it's not that the WMD Directorate wasn't involved in Amerithrax. Indeed, when Majidi, then the WMD Directorate's Assistant Director, conducted the briefings to explain why FBI believed Ivins was the anthrax culprit, he attributed part of the "success" to the WMD Directorate.

> The creation of the Weapon of Mass Destruction Directorate is another example of FBI's progressive approach focusing on prevention as well as investigations on all issues involving chemical, biological, radiological, and nuclear materials.

In terms of time, cost, and attack severity, the anthrax attack has been the most important thing the WMD Directorate has worked on since its inception. So why is Majidi so reluctant to talk about it?

PATRICK LEAHY IN BIG RUSH TO RECONFIRM

THE GUY WHO WON'T SOLVE LEAHY'S ATTEMPTED MURDER

By now, it should be clear that, contrary to their claims, the FBI has not solved the anthrax killings. Sure, Bruce Ivins can't be ruled out as having been involved. But the FBI has offered no plausible explanation for the following:

- How a small sample of anthrax from Ivins' flask was cultured into at least two larger samples of anthrax with a number of materials added
- How those samples were dried
- When that happened and how long that took
- How and why the anthrax got sent from Princeton (I consider the KKG story implausible)
- Why Leahy and Daschle were targeted

The FBI hasn't even offered an explanation for several of these questions (they've offered weak explanations for the Princeton mailing and the Leahy and Daschle targeting). And yet, based largely on Bruce Ivins' long hours in a lab that was not amenable to producing the anthrax used in the attack, the FBI insists he's the culprit (his lab hours are close to being an alibi at this point).

Which is why Patrick Leahy's push to reconfirm Robert Mueller—particularly Leahy's citation of urgency surrounding the 9/11 anniversary (which after all means the 10 year anniversary of the unsolved anthrax attack is approaching as

well)—is so odd. In comments on the Senate floor on Monday, Leahy pressured Rand Paul to release his hold on Mueller's reconfirmation.

> "There is no good reason for delay. At first it was reportedly Senator Coburn who was holding up consideration of the bill, then Senator DeMint, and now apparently it is an objection by Senator Paul of Kentucky that is preventing the Senate from proceeding. This sort of delay is inexplicable and inexcusable."
>
> Leahy continued, "Given the continuing threat to our Nation, especially with the tenth anniversary of the September 11, 2001, attacks approaching, and the need to provide continuity and stability on the President's national security team, it is important that we respond to the President's request and enact this necessary legislation swiftly. I urge the Senate to take up this critical legislation and pass it without further delay."

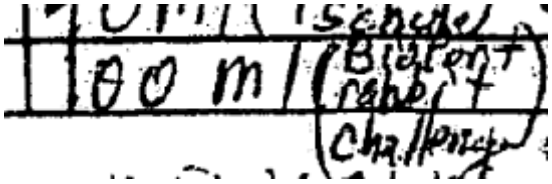
We've gotten the people behind 9/11. We have not yet gotten the people behind a government-connected terrorist attack on its own people. And yet Leahy—one target of that attack—is unquestioningly pushing the guy who refuses to solve the case (much less allow an independent review of the FBI's investigation into it) for two more years.

Leahy's pressure on Paul is all the more weird considering that Leahy, with his support for PATRIOT Act improvements in the past, has basically ceded the legitimacy of a number of the questions Paul wants answered before Mueller is reconfirmed, notably those about how the PATRIOT Act is used and abused.

I don't often think Rand Paul is smarter than Patrick Leahy, but in this case, Leahy's rush to reconfirm Mueller without asking any questions or getting any commitments on these issues is

“inexplicable and inexcusable,” not Paul’s efforts to exercise a tiny bit of oversight.

DOJ: THESE AREN’T THE BIOPORT SPORES YOU’RE LOOKING FOR



DOJ just submitted a filing asserting that a number of claims they made in filings last week were erroneous.They’re claiming that:

1) Their statement of facts supporting their claim asserting that no anthrax disappeared from USAMRIID and therefore Ivins must be the anthrax killer (but an unforeseen one) should have admitted that Ivins did have a lypholizer in his lab, but not in a way he could use.

2) Their statement that a scientist who had been vaccinated against anthrax could walk out of USAMRIID with anthrax injected into his body—as opposed to bloodstream—could get anthrax out of the lab.

3) Their statements quoting army regulations should match those army regulations.

4) The book on lab security was not written until 2007.

In other words, much of the filing is a bid to resubmit their homework. They look like idiots. But whatever.

Except for the central claim to the filing.

Most of their filing tries to reel in their admission that USAMRIID sent anthrax to both

Battelle and BioPort labs—the latter is an anthrax vaccine manufacturer that was at risk of losing its contract in 2001. Points 2-7 all try to replace "BioPort and Battelle" with just Battelle.

Now, I'm not sure what their rationale for retracting the admission that they sent anthrax from Bruce Ivins' anthrax flask to BioPort is. ~~Ivins'~~ description ~~of what he did with the flask in question appears to clearly show he sent 100 ml to BioPort on December 4, 2000 (indeed, one of Ivins' colleagues~~ testified ~~that some anthrax was sent to BioPort)~~. And BioPort would have precisely the same motive for sending out anthrax as the FBI attributed to Ivins: an financial interest in ensuring the government kept producing the anthrax vaccine. Update: This report (h/t Jim White) seems to confirm the Rabbit Challenge took place at USAMRIID.

~~In other words, it appears that USAMRIID actually~~ **~~did~~** ~~send anthrax to BioPort, a lab with a clear motive for creating fear about anthrax~~. And this filing appears to want to claim that USAMRIID didn't send that anthrax—even though Bruce Ivins' records, which the government has relied on to say Ivins had control over the anthrax, says they did.

And this head fake helps the government's claim that Bruce Ivins was the anthrax killer … how?

Update: A justice department spokesperson explains that BioPort never got any active anthrax spores. "The only RMR-1029 spores which Bioport received were irradiated/dead/non-viable/harmless. Battelle is the only private research facility which received viable RMR-1029 spores."

GOVERNMENT INCHES CLOSER TO ADMITTING IT HASN'T SOLVED ANTHRAX ATTACK

As a number of you have noted, ProPublica is out with a story on yet more evidence why Bruce Ivins was probably not the anthrax killer. Here's the deposition they cite in their story; his former colleague Patricia Worsham described how USAMRIID didn't have the facilities to dry the anthrax used in the attack, and certainly not the quantities that were used in the attack.

> I think I summarized it before to a certain extent, in that I don't believe that we had facilities at USAMRIID to make that kind of preparation. It would have taken a great deal of time; it would have taken a huge number of cultures; it would have taken a lot of resources that would have been obvious to other people within containment when they wanted to use those resources.
>
> We did not have anything in containment suitable for drying down anything, much less a quantity of spores. The lyophilizer that was part of our division was in noncontainment. If someone had used that to dry down that preparation, I would have expected that area to be very, very contaminated, and we had nonimmunized personnel in that the area, and I might have expected some of them to become ill.

Just as interesting is the argument the lawyers for Maureen Stevens—Bob Stevens' wife—made when withdrawing their earlier stipulation that Bruce Ivins was the killer. They cite two former supervisors of Ivins, William Russell Byrne and Gerard Andrews, explaining why they thought

Ivins couldn't have made the anthrax used in the attacks.

Byrne argued that, had Ivins used the lypholizer to dry the anthrax, it would have left evidence.

> He reiterated that if the laboratory's equipment (lypholizer) had been used to lypholize that powder, you would have been able to find evidence of it pretty easily (76/23). The powder would have gotten everywhere insider the lypholizer.

And Andrews explained that the volume the equipment in Ivins' lab was insufficient to make the amount of spores used in the attack.

> Dr. Andrews stated: "No, I don't believe he had the equipment, in my opinion." He said that the equipment in BSL3 had limitations in that the lypholizer was a low-volume lypholizer that could handle maybe up to 50 mils at a time in separate small tubes. He opined "where would he do it without creating any sort of contamination is beyond me, but it has been speculated that the lypholizer may have been moved into a Class 2 Biological Safety Cabinet to prevent spores from flying everywhere. I would think the physical size of the lypholizer would be difficult to get the entire, or the speed vac to get the entire apparatus under the hood. It might be possible to get the apparatus under the hood; however, there would be contamination of it inside the hood if that was the case.

Byrne and Andrews also address Ivins' training—that is, lack of training on weaponizing anthrax.

Right now, to try to salvage this suit, the government is arguing that the plaintiffs have no evidence of anyone else making the anthrax,

but that since Ivins' supervisors didn't think he had the capability to make the anthrax, the government can't be held liable for the anthrax that killed Bob Stevens.

But along the way, evidence like this—as well as further evidence that Ivins didn't have sole control of the anthrax—is making it more and more clear that the government hasn't solved this case.