

**Rogers, Sandra J CIV USARMY MEDCOM USAMRMC (US)**

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Thursday, November 01, 2001 4:22 PM  
**To:** Vander-Linden, Caree L Ms USAMRIID  
**Subject:** RE: New Yorker

We shared it with Porton Down and with DRES in Canada, **Caree**.  
- Bruce

>-----Original Message-----

>From: **Vander-Linden, Caree L Ms** USAMRIID  
>Sent: Thursday, November 01, 2001 3:57 PM  
>To: **Friedlander, Arthur M COL** USAMRIID  
>Cc: Ivins, Bruce E Dr USAMRIID  
>Subject: New Yorker

>

>New Yorker fact checker asks one more question on the **Boyer** piece--did we share Ames strain with other military labs like Porton Down? Or did they get it on their own?

>

>I realize this has taken way too much of your time but I told her I would pass it along with no guarantee I could get a quick reply.

**Rogers, Sandra J CIV USARMY MEDCOM USAMRMC (US)**

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Sunday, October 28, 2001 4:21 PM  
**To:** Vander-Linden, Caree L Ms USAMRIID  
**Subject:** FW: New Yorker plea

Some more answers, Caree...  
- Bruce

-----Original Message-----

**From:** CurDogSOR@aol.com [mailto:CurDogSOR@aol.com]  
**Sent:** Sunday, October 28, 2001 3:41 PM  
**To:** caree.vander-linden@amedd.army.mil  
**Cc:** bruce.ivins@amedd.army.mil; art.friedlander@amedd.army.mil  
**Subject:** New Yorker plea

Dear Caree,

I think that I appreciate the stress that you folks are under just now, and I apologize for adding to your burden. Yet, I have a job, and at present that job requires me to write this story about anthrax. It's due on Wednesday. I have a few final questions, and they really be the last ones. I'd be very grateful for answers. You can call 914 941-4909 or e-mail.

Much, much thanks.

Peter J. Boyer, The New Yorker

The field tests of the human anthrax vaccine conducted by Dr. Philip Brachman and his colleagues in the 1950s (testing those workers up in New England who handled goat hair) demonstrated the efficacy of the human anthrax vaccine. Why were y'all still testing it on rhesus monkeys a few years ago? (I would have guessed that it was because Dr. Brachman's field test involved textile workers who'd suffered cutaneous anthrax, and the vaccine hadn't been really tested against inhalation anthrax; but, apparently, those long-ago textile workers had suffered from inhalation anthrax, which, I suppose, raises another question: How'd that anthrax become aerosolized?)

\*\*\*\*\*

We answered part of the question previously, that is, today's vaccine is not exactly the same as the vaccine of the 1950s. Inhalation anthrax (sometimes called "woolsorters' disease") was found in individuals who worked in mills with hides and wool contaminated with spores. During the processing, individual spores on the material, sometimes in large quantities, would become aerosolized as a result of the various handling procedures.

USAMRIID got a strain of anthrax from the NVSL in 1980, and named it the "Ames strain." I'm supposing that once you had it, were you able to keep

growing more, as needed. Or, did USAMRIID have to keep going back to Ames (or other labs) when it needed a new isolate?

\*\*\*\*\*

Answered previously. We keep small stocks of various bacterial strains. We did not have to keep going back to the NVSL for more.

In testing the vaccine, the USAMRIID scientists used a nebulizer, which is to say, they sprayed the stuff in the monkeys' environment. Two quick questions: To get the stuff fine enough, "unagglomerated," if you will, to be sprayed, did they just apply an additive (such as the now-famous Bentonite)?

\*\*\*\*\*g

No. No additives. The spores were (and are) suspended in sterile distilled water.

Or, did they not need to make it into a powder for the nebulizer? [Okay, three questions] If they did make it into a powder, I assume they used some additive, and that it was one of the additives patented by Bill Patrick (and not, for example, Bentonite)?

\*\*\*\*\*

We don't use spore "powders" for aerosol challenges. Furthermore, we don't have the knowledge, technical skill, or facilities to create powdered spores for challenge.

But I wonder: Why not just use some of our own weaponized anthrax (assuming we still have some tiny bit left for these very such purposes) for the challenge?

\*\*\*\*\*

We don't have any "weaponized" anthrax spores...not even a "tiny bit." For our aerosol challenges, Dugway Proving Ground makes spores for us and sends them to us.

Did USAMRIID use the Ames isolate for purposes other than testing the vaccine? And if so (as I assume), can you tell me what those purposes were?

\*\*\*\*\*

Various strains of B. anthracis are used for different research studies. For example, antibiotic sensitivity testing and macrophage phagocytosis studies.

Did USAMRIID send a copy of its Ames isolate to the ATCC, as I've been told?

\*\*\*\*\*

Already answered. I don't think so, but check with the ATCC. I don't have a record of having sent it to the ATCC.

What were the circumstances under which USAMRIID sent the Ames strain to other labs around the world (if it indeed did so)?

\*\*\*\*\*

Already answered. The strain was sent to collaborating labs and contracting labs.

Regarding the discovery of the virulence of the Ames strain (isolate, as you will), you tell me that it was the work of **Little** and **Knudson** that recognized the particular virulence of the Ames strain. I'm guessing that their work was done at/in association with USAMRIID? And, what was the context of their study (looking for a virulent strain to use in vaccine challenges, etc)?

\*\*\*\*\*

Yes, it was done at USAMRIID. They were doing studies with strains of B. anthracis at USAMRIID in an attempt to determine if any strains/isolates, in the guinea pig model, would overcome vaccination with the human vaccine.

Finally, one reads that the process of identifying this terror anthrax is being done there at USAMRIID. Does that mean that y'all are doing the DNA work? But isn't **Paul Keim** doing that out in Arizona?

\*\*\*\*\*

That's a question for **Paul Keim**.

Thanks again,

**Peter J. Boyer**

**Rogers, Sandra J CIV USARMY MEDCOM USAMRMC (US)**

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Tuesday, October 30, 2001 7:05 AM  
**To:** [Pat Fellows in Florida \(E-mail\)](#)  
**Subject:** FW: New Yorker urgently asks fact-check on one question. Please

Can you believe this, QB?? [Deborah McKenzie](#) now says that we have "weaponized" the Ames strain. INCREDIBLE!!!!  
- Bruce

-----Original Message-----

**From:** [CurDogSOR@aol.com](mailto:CurDogSOR@aol.com) [<mailto:CurDogSOR@aol.com>]  
**Sent:** Monday, October 29, 2001 7:08 PM  
**To:** [caree.vander-linden@amedd.army.mil](mailto:caree.vander-linden@amedd.army.mil)  
**Cc:** [bruce.ivins@amedd.army.mil](mailto:bruce.ivins@amedd.army.mil); [arthur.friedlander@amedd.army.mil](mailto:arthur.friedlander@amedd.army.mil)  
**Subject:** New Yorker urgently asks fact-check on one question. Please

Dear [Caree \(and Col. Friedlander\)](#) and Dr. Ivins),

Okay, I give. But I have to turn this story in tomorrow night, for publication next week. In the interest of factual accuracy, would one of you be kind enough to answer this question?

It really does help to be as factually accurate as possible in moments such as this, especially given the fact that, for example, the New Scientist now reports that USAMRIID had weaponized the "Ames" strain. But I'd really, really love to know if I'm going to be correct in explaining that USAMRIID asked for this bloody isolate from that unfortunate bovine in 1980 because it was challenging the human anthrax vaccine.

Thank you very much,

[Peter J. Boyer](#)  
The New Yorker  
[\(914\) 941-4909](tel:(914)941-4909)

**Rogers, Sandra J CIV USARMY MEDCOM USAMRMC (US)**

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Wednesday, October 24, 2001 12:56 PM  
**To:** Vander-Linden, Caree L Ms USAMRIID  
**Subject:** RE: New Yorker query

-----Original Message-----

From: Vander-Linden, Caree L Ms USAMRIID  
Sent: Wednesday, October 24, 2001 12:39 PM  
To: Friedlander, Arthur M COL USAMRIID; Pitt, Louise Dr USAMRIID; Ivins, Bruce E Dr USAMRIID  
Subject: FW: New Yorker query

More questions from Peter Boyer, if we are so inclined.

In response to question 1, my understanding is that the Brachman study was not statistically significant for inhalation anthrax...thus the need for inhalation challenge studies in the primate model.

Some of these others are clearly out of our lane.

Caree

-----Original Message-----

From: CurDogSOR@aol.com [mailto:CurDogSOR@aol.com]  
Sent: Wednesday, October 24, 2001 12:06 PM  
To: caree.vander-linden@amedd.army.mil  
Subject: New Yorker query

Dear Caree,

Thanks much for your help in getting answers to those basic questions of mine. I'm sorry that Col. Friedlander isn't available, though, if he should become available, I can promise a forum in which he can answer a lot of basic questions that are puzzling (and terrifying) a lot of folks.

In the meantime, I have just a few followups, if you would be so kind as to secure answers for me.

The field tests of the human anthrax vaccine conducted by Dr. Philip Brachman and his colleagues in the 1950s (testing those workers up in New England who handled goat hair) demonstrated the efficacy of the human anthrax vaccine. Why were y'all still testing it on rhesus monkeys a few years ago?

\*\*\*\*\*

The current vaccine is not exactly the same as the vaccine used in the 1950s. The current vaccine is aluminum hydroxide-adsorbed, not alum-precipitated. Also, the fermentation conditions are somewhat different. Hence, since there were no primate data for the current vaccine, we performed the experiments to which Mr. Boyer refers.

The way I understand it, USAMRIID got a strain of anthrax from the NVSL in 1980, and named it the "Ames strain." Once you had it, were you able to keep growing more? Or, did USAMRIID have to keep going back to Ames (and other labs) every time it needed a new isolate?

\*\*\*\*\*

We (and Dugway Proving Ground) grow up small quantities for our use in challenge studies. We did not have to go back to the NVSL for the strain. The strain is currently stored frozen in a secure biocontainment suite, whose access is strictly controlled.

Thank you for the explanation about aerosolizing the stuff. I just wonder, when they heat shock the little buggers, is that to activate the spores?

\*\*\*\*\*

According to older reports (which I can't name right at the moment), heat shock prepares the spores for germination.

One hears (mostly from the press, I admit) about "milling" these spores to make them powdery. Is milling the same as aerosolizing them? Is it routinely done?

\*\*\*\*\*

We don't know. We don't have the knowledge, expertise or equipment for creating "powdery" spores. Our aerosols are done in a closed hood, under BL-4 conditions, using liquid suspensions of spores.

One also hears (because one is obliged to depend upon the news media, alas [hint, hint]) that the anthrax sent through the mails is 'similar to the Ames strain, but not identical.'? Does that mean anything?

\*\*\*\*\*

Caree, I'm not informed about who is doing what studies to identify the strains/isolates. It may be confidential.

This is a general question, not a specific one: Wouldn't any investigation into an act of terror-by-mail necessarily involve identifying the strain, then going to the labs that had that particular strain? Or, is it not so simple for some reason?

\*\*\*\*\*

USAMRIID isn't in the business of criminal investigations. We are in the business of diagnosis, detection, treatment and prophylaxis. The FBI would be a better source for an answer to the question.

Did USAMRIID send a "copy" of its Ames isolate to the ATCC?

\*\*\*\*\*

To my knowledge, no, but he should ask ATCC if they have the strain.

Finally, what were the circumstances under which USAMRIID sent the Ames strain to other labs around the world (if it indeed did so)? Was it broken down - aerosolized or milled?

\*\*\*\*\*

The strain was sent by us to contractors and collaborators. It was sent either in small volume spore suspensions or in small vials of frozen broth.

Thank you very much,

Peter J. Boyer  
The New Yorker

**Rogers, Sandra J CIV USARMY MEDCOM USAMRMC (US)**

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Monday, October 29, 2001 8:12 PM  
**To:** Vander-Linden, Caree L Ms USAMRIID  
**Subject:** FW: New Yorker urgently asks fact-check on one question. Please

More info, Caree.

-----Original Message-----

From: [CurDogSOR@aol.com](mailto:CurDogSOR@aol.com) [mailto:CurDogSOR@aol.com]  
Sent: Monday, October 29, 2001 7:08 PM  
To: [caree.vander-linden@amedd.army.mil](mailto:caree.vander-linden@amedd.army.mil)  
Cc: [bruce.ivins@amedd.army.mil](mailto:bruce.ivins@amedd.army.mil); [arthur.friedlander@amedd.army.mil](mailto:arthur.friedlander@amedd.army.mil)  
Subject: New Yorker urgently asks fact-check on one question. Please

Dear Caree (and Col. Friedlander and Dr. Ivins),

Okay, I give. But I have to turn this story in tomorrow night, for publication next week. In the interest of factual accuracy, would one of you be kind enough to answer this question?

The field tests of the human anthrax vaccine conducted by Dr. Philip Brachman and his colleagues in the 1950s (testing those workers up in New England who handled goat hair) demonstrated the efficacy of the human anthrax vaccine against inhalation anthrax. Why were y'all still testing it on rhesus monkeys a few years ago?

\*\*\*\*\*

We were testing a vaccine that was somewhat different than the 1950s vaccine, with respect to fermentation conditions and absorption onto different aluminum adjuvants.

That IS why you all requested what you called the "Ames strain" in 1980, isn't it? Or, were those for different tests?

\*\*\*\*\*

In late 1980 and early 1981, when anthrax research had dramatically picked up as a result of learning of the Sverdlovsk incident, we began writing to scientists, laboratories and culture collections to gather sample strains for the impending vaccine research. The strain sent to us by the NVSL at the USDA in Ames, Iowa, was one of them.

More than anything, I really need to know, even if it's only in the most general terms, why y'all needed that strain from the NVSL in 1980.

\*\*\*\*\*

We were not seeking that specific strain, (which did not come with a specific designation) nor at the time did we know anything about its virulence. We asked for strains from other laboratories as well. That strain was not singled out for us to obtain by anyone. It just so happened that it was one strain that we obtained through our many requests.

It really

does help to be as factually accurate as possible in moments such as this, especially given the fact that, for example, the New Scientist now reports that USAMRIID had weaponized the "Ames" strain.

\*\*\*\*\*

You have GOT to be kidding me!!!!!! This is scurrilous, egregious, outrageous, as well as completely wrong.

It's my understanding that the "Ames" strain was not weaponized by the U.S.

\*\*\*\*\*

That is correct.

But I'd really, really love to know if I'm going to be correct in explaining that USAMRIID asked for this bloody isolate from that unfortunate bovine in 1980 because it was challenging the human anthrax vaccine.

\*\*\*\*\*

In late 1980 and early 1981, when anthrax research started up again here at USAMRIID, we had no virulent strains in the institute to use for challenge in vaccine studies. We eventually were sent the Vollum 1B strain from Dugway Proving Ground. We also obtained strains, including the Ames strain, from other laboratories. We intended to test the human vaccine against various virulent strains to hopefully demonstrate in the guinea pig model that AVA was protective against all strains. The "Ames" strain was one of those tested, and it was found to be highly refractory to AVA in the guinea pig model.

Thank you very much,

Peter J. Boyer,  
The New Yorker  
(914) 941-4909