

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** Access for (b) (6) o (b)(2)  
**Date:** Monday, June 26, 2006 4:00:28 PM

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(b) [redacted] is getting access to (b)(2) (hotside), and (b)(2). She'll need to have access to our (b)(2) lab, which requires PIN. Could you please put her on the roster of approved people to go into the suite. If she needs to give to you her PIN, please let her know. Thanks!!!

Bruce Ivins

(b) (6)  
[redacted]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Accomplishments in past year  
**Date:** Thursday, July 06, 2006 4:17:38 PM  
**Attachments:** [Redacted]

---

(b) (6)

Here are my accomplishments for the past year for my performance appraisal.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** AGI counts for NHP spray on 27 JUN 06  
**Date:** Friday, June 30, 2006 3:51:46 PM

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Here are the counts for the spray on 27 JUN.

Post heat shock counts (sprayed) - 2.64 X 10e9/ml

\*\*\*\*\*

AGI Counts:

NHP #	Counts (X 10e7 per ml)
1	1.13
2	1.37
3	1.60
4	1.30
5	1.40
6	1.63
7	1.87
8	0.51
9	1.23
10	1.97
11	0.93
12	2.07

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** B. anthracis Strains for PCR and TIGR analysis  
**Date:** Wednesday, July 05, 2006 9:26:41 AM

---

Hi, (b) (6)

We'd like to give you 8 samples of B. anthracis strains (with two negative controls included) to test via PCR, and 8 samples (including 2 negative controls) to test via TIGR analysis. We can give them to you late this afternoon or, if you'd rather, tomorrow sometime. Please let me know, and we'll have them ready for you. Thanks.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** training for (b) (6)  
**Date:** Friday, June 30, 2006 8:25:12 AM

---

Please let (b) (6) and me know what would be a good day and time for her to receive training from you, (b) (6). Thanks.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** (b) (6) - PIN access to (b)(2)  
**Date:** Wednesday, July 05, 2006 9:30:52 AM

---

(b) (6) will be working in our laboratory in (b)(2). That room requires PIN access. Please allow her access to the laboratory. Thanks!

Bruce Ivins

(b) (6)  
(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** (b) (6) Obejctives  
**Date:** Tuesday, July 25, 2006 4:15:13 PM  
**Attachments:** [REDACTED]

---

Here you are (b) (6)

Bruce Ivins

(b) (6)  
[REDACTED]

**From:** [Ivins, Bruce E Dr USAMRIID](#)

**To:** Worst (b) (6)

(b) (6)

**Subject:** EMThrax proposal budget

**Date:** Thursday, July 13, 2006 1:19:53 PM

**Attachments:**

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Here is the proposed, revised budget for the EMThrax vaccine study. We still need to have a meeting or teleconference with them to work out some questions. I'd intend it for the first quarter of FY07, but that could be moved into the second or third quarter, depending on our capabilities and the needs of EMThrax. When we write the CRDA, how could we structure it so that the money doesn't get taken from us (from up front), and perhaps extend some payment (salaries?) into FY08, since FY07 is already covered?

Bruce Ivins

(b) (6)

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Subject: FW:  
Date: Thursday, August 10, 2006 4:23:50 PM

---

Here you are.

Bruce Ivins

(b) (6)

---

From: (b) (6)  
Sent: Thursday, August 10, 2006 4:05 PM  
To: Ivins, Bruce E Dr USAMRIID; (b) (6)  
Subject:

ACQ. COST LOCATION	NAMEPLATE MODEL	SERIAL No	SHORT ITEM DESCRIPTION	PERM.
\$264.67 Sharp	(F6345) R-203HW	(b)(2)	33873	
	microwave oven			
\$5,995.16 Sorvall	(F2970) HS4	(b)(2)	10253112	
				swinging bucket rotor
\$6,191.93 Sorvall	(F6901) SLA3000	(b)(2)	10453634	
				fixed angle rotor
\$6,191.93 Sorvall	(F6901) SLA3000	(b)(2)	10453709	
				fixed angle rotor

\$1,779.25 Precision	(F5982) 260 (b)(2)	603111470	
			water bath
\$4,702.76 Mettler	(F6913) PB153S (b)(2)	1125232824	
			digital balance
\$2,682.94 Mettler	(F2334) PG503S (b)(2)	1120353635	
			digital balance
\$3,516.86 Revco	(F7160) REL3004A20 (b)(2)	V280105838VO	
			4c refrigerator
\$3,046.48 Solutions	(F5994) 2001AU (b)(2)	042121AU	Aqua
unit			Water purification
\$8,688.93 Labconco	(F7386) 44204 (b)(2)	040926406	
			Glassware washer
\$20,698.73 Sorvall	(F6807) RC5BPLUS (b)(2)	S270155859T0	
refrigerated centrifuge			superspeed
\$20,698.73 Sorvall	(F6807) RC5BPLUS (b)(2)	T290156020T0	
refrigerated centrifuge			superspeed
\$9,824.90 Brunswick	(F2389) classic C25 (b)(2)	100927774	New

Incubator shaker

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** FW:  
**Date:** Wednesday, June 28, 2006 7:41:57 AM  
**Attachments:** [REDACTED]

---

These are pictures of spore that (b) (6) and (b) (6) took in (b) (2). These are some from one of the preps for NIAID.

Bruce Ivins

(b) (6)  
[REDACTED]

---

**From:** (b) (6)  
**Sent:** Tuesday, June 27, 2006 4:29 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** FW:

Pictures of the spores from the tube 1st broth.

(b) (6)  
[REDACTED]

---

**From:** (b) (6)  
**Sent:** Tuesday, June 27, 2006 3:57 PM  
**To:** (b) (6)  
**Subject:**

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6) (b) (6)  
**Cc:** (b) (6)  
**Subject:** FW:  
**Date:** Thursday, August 10, 2006 4:23:50 PM

---

Here you are.

Bruce Ivins

(b) (6)

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**From:** (b) (6)  
**Sent:** Thursday, August 10, 2006 4:05 PM  
**To:** Ivins, Bruce E Dr USAMRIID; (b) (6)  
**Subject:**

ACQ. COST LOCATION	NAMEPLATE MODEL	SERIAL No	SHORT ITEM DESCRIPTION	PERM.
\$264.67 Sharp	(F6345) R-203HW	(b)(2)	33873	
	microwave oven			
\$5,995.16 Sorvall	(F2970) HS4	(b)(2)	10253112	
				swinging bucket rotor
\$6,191.93 Sorvall	(F6901) SLA3000	(b)(2)	10453634	
				fixed angle rotor
\$6,191.93 Sorvall	(F6901) SLA3000	(b)(2)	10453709	
				fixed angle rotor

\$1,779.25 Precision	(F5982) 260 (b)(2)	603111470		water bath
\$4,702.76 Mettler	(F6913) PB153S (b)(2)	1125232824		digital balance
\$2,682.94 Mettler	(F2334) PG503S (b)(2)	1120353635		digital balance
\$3,516.86 Revco	(F7160) REL3004A20 (b)(2)	V280105838VO		4c refrigerator
\$3,046.48 Solutions  unit	(F5994) 2001AU (b)(2)	042121AU	Aqua	Water purification
\$8,688.93 Labconco	(F7386) 44204 (b)(2)	040926406		Glassware washer
\$20,698.73 Sorvall  refrigerated centrifuge	(F6807) RC5BPLUS (b)(2)	S270155859T0		superspeed
\$20,698.73 Sorvall  refrigerated centrifuge	(F6807) RC5BPLUS (b)(2)	T290156020T0		superspeed
\$9,824.90 Brunswick	(F2389) classic C25 (b)(2)	100927774	New	

Incubator shaker

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** FW: Alhydrogel  
**Date:** Monday, July 17, 2006 9:30:27 AM

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(b) (6)

Could you please order some Alhydrogel? Thanks!

Bruce Ivins

(b) (6)

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**From:** (b) (6) ]  
**Sent:** Friday, July 14, 2006 4:30 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Alhydrogel

Dear Dr. Ivins,

I got your e-mail message Thursday afternoon ( 7-13-06 ) Since I was out of my office. I am sorry for the late response to your inquiry about Alhydrogel. We purchased this material from E.M. Sergeant Pulp And Chemical Co. The material is manufactured by Brenntag-Biosector of Denmark. I will give you the ordering information as follows :

E. M. Sergeant Pulp And Chemical Co., Inc.  
6 Chelsea Road  
Clifton, N. J. 07012  
Phone ( 973 ) 472-9111  
Fax: ( 973 ) 472-5686

E-Mail : [sergeant@ cybernex.net](mailto:sergeant@cybernex.net)

I am doing well here, thank you. The weather here is pretty nice. Please call me if you have any questions concerning the information. Have a nice weekend.

Best regards,

(b) (6)

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

**From:** Ivins, Bruce E Dr USAMRIID [<mailto:bruce.ivins@us.army.mil>]  
**Sent:** Wednesday, July 12, 2006 4:18 PM  
**To:** (b) (6)  
**Subject:** Alhydrogel

Dear (b) (6)

How are you? I hope you have been having good weather. Our weather is quite warm and humid right now.

Would you be able to give to me the ordering information for the Alhydrogel that you purchase?  
We are in need of some more Alhydrogel for some of our studies. Thank you very much for your help!!

Sincerely,

Bruce Ivins

(b) (6)

A large black rectangular redaction box covers the signature and any contact information that might have been present.

This e-mail communication (including any attachments) contains information from Emergent BioSolutions or its affiliates that is confidential and may be privileged.

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If you have received this e-mail in error, please immediately reply to sender, delete the message and destroy all copies of it.

If you have questions, please email [netops@bioport.com](mailto:netops@bioport.com). Thank you.

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** FW: info on march spore transfer  
**Date:** Thursday, July 20, 2006 3:27:54 PM  
**Attachments:** [REDACTED]

---

Here is the information I have on the transfer of spores to (b) (6) in March.

Bruce Ivins

(b) (6)

(b) (6)

-

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Cc: (b) (6)  
Subject: FW: NBACC equipment  
Date: Thursday, August 10, 2006 2:42:10 PM  
Attachments: [REDACTED]

---

(b) (6) could you please look up the info below that's in red for the NBACC items? Thanks!

Bruce Ivins

(b) (6)

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

From: (b) (6)  
Sent: Thursday, August 10, 2006 2:39 PM  
To: Ivins, Bruce E Dr USAMRIID  
Subject: FW: NBACC equipment

Hi Bruce:

They also need the nameplate model, and cost for each item. Please see below. I added my HR items to the attached document. We then need to send it to (b) (6)

Thanks,

(b) (6)

(b) (6)

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

From: (b) (6)  
Sent: Thursday, August 10, 2006 2:24 PM  
To: (b) (6)  
Cc: (b) (6)  
Subject: RE: NBACC equipment

ACQ. COST  
NAMEPLATE MODEL  
SERIAL No.  
SHORT ITEM DESCRIPTION  
PERM. LOCATION

ABOVE are the headings in the excel spreadsheet that we need to capture.

(b) (6)

(b) (6)

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

From: (b) (6)

<(b) (6) > ]

Sent: Thursday, August 10, 2006 2:14 PM

To: (b) (6)

Subject: RE: NBACC equipment

Hi (b) (6) :

Also included but not on the attached list are the following:

F7722 - SN: 400768553 Incubator, Biologic Test by New Brunswick

F7744 - SN: 500182025 Shaker Incubator by New Brunswick

F7727 - SN: 043104132 Incubator, Aerobic by Boekel

F7634 - SN: JPHAD17142 Printer, Laser4600D by Hewlett Packard

F7641 - SN: 8WKNC61 Computer, Desktop, Tower by Dell F8540 - SN: CNOC06464663356933TL

Monitor, Computer by Dell

Thanks,

(b) (6)

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

From: (b) (6)

Sent: Thursday, August 10, 2006 12:41 PM

To: (b) (6)

Subject: FW: NBACC equipment

(b) (6)

Please forward the property book item listing for equipment purchased for the Spore Production facility with DHS funds. We decided to include these items in the list of leave-behind equipment in the IAA, in exchange for negotiable future services (produce spores for DHS use).

Many thanks for your help in providing this information. (b) (6)

(b) (6)

(b) (6)

[Redacted]

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

From: (b) (6) > ]  
Sent: Thursday, August 10, 2006 12:19 PM  
To: (b) (6)  
Subject: FW: NBACC equipment

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From: (b) (6)  
(b) (6)  
Sent: Wed 8/9/2006 3:42 PM  
To: (b) (6)  
Cc: (b) (6)  
Subject: NBACC equipment

(b) (6)

Any word from (b) (6) on the status of the Electron Microscope or the Spore Production Equipment remaining back at USAMRIID after NBACC vacates the USAMRIID building?

(b)(6)

(b) (6)

[Redacted]



**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** FW: NIAID data so far  
**Date:** Wednesday, August 16, 2006 10:41:33 AM  
**Attachments:** [REDACTED]

---

Information

Bruce Ivins

(b) (6)

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Thursday, July 06, 2006 4:08 PM  
**To:** (b) (6)  
**Subject:** NIAID data so far

(b) (6)

Enclosed is the NIAID data so far.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** FW: Pictures of tubes of spores for NIAID  
**Date:** Wednesday, August 16, 2006 10:35:07 AM  
**Attachments:** [Redacted]

---

Here you are - pictures of tubes from the NIAID work.

Bruce Ivins  
(b) (6)  
[Redacted]

-----Original Message-----  
From: Ivins, Bruce E Dr USAMRIID  
Sent: Wednesday, June 28, 2006 8:07 AM  
To: (b) (6)  
Subject: Pictures of tubes of spores for NIAID

Pictures of tubes of spores made in different media.

Bruce Ivins  
(b) (6)  
[Redacted]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** FW: Scan from a Xerox WorkCentre Pro  
**Date:** Tuesday, July 25, 2006 3:31:56 PM  
**Attachments:** [REDACTED]

---

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

**From:** (b) (6)  
**Sent:** Tuesday, July 25, 2006 3:10 PM  
**To:** Ivins, Bruce E Dr USAMRIID; Ivins, Bruce E Dr USAMRIID  
**Subject:** Score Report for BRUCE IVINS

This is an automated message sent by the School of Information Technology Information Assurance Web Site.

Score report for: BRUCE IVINS  
Date: 25 July 2006  
Test Name: Computer Users Security Final Exam  
Questions: 25  
Correct: 24  
Passing grade for this test: 70  
Student's Score: 96  
Student has passed.

Sincerely,  
SIT IA Branch  
[ia@gordon.army.mil](mailto:ia@gordon.army.mil)  
<http://ia.gordon.army.mil>

Bruce Ivins

(b) (6)  
[REDACTED]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** FW: Scan from a Xerox WorkCentre Pro  
**Date:** Tuesday, July 25, 2006 3:31:56 PM  
**Attachments:** [REDACTED]

---

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

From: (b) (6) ]  
Sent: Tuesday, July 25, 2006 3:10 PM  
To: Ivins, Bruce E Dr USAMRIID; Ivins, Bruce E Dr USAMRIID  
Subject: Score Report for BRUCE IVINS

This is an automated message sent by the School of Information Technology Information Assurance Web Site.

Score report for: BRUCE IVINS  
Date: 25 July 2006  
Test Name: Computer Users Security Final Exam  
Questions: 25  
Correct: 24  
Passing grade for this test: 70  
Student's Score: 96  
Student has passed.

Sincerely,  
SIT IA Branch  
[ia@gordon.army.mil](mailto:ia@gordon.army.mil)  
<http://ia.gordon.army.mil>

Bruce Ivins

(b) (6)  
[REDACTED]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6) [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** FW: Usage - 1 AUG 06  
**Date:** Tuesday, August 01, 2006 12:24:08 PM

---

Info on strain usage.

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**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Thursday, July 20, 2006 11:47 AM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** Usage - 19 July 06

40 SBA plates - inoculated 1 AUG 06 JUL 06. Strain B. anthracis 8222G.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6); [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** FW: Vaccine project, next steps  
**Date:** Tuesday, July 11, 2006 12:40:58 PM  
**Attachments:**

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I've looked over the animal protocol and I have some comments about it. First of all, though, I have a budget of DIRECT costs. (No indirect costs or overhead costs figured into this.)

Swiss Webster mouse cost = \$3.70 per mouse	62 mice X \$3.70 =	\$229.40
Housing costs - (b)(2) - \$3.75 per pan per day	7 pans X 37 days X \$3.75 =	\$971.25
Housing costs - (b)(2) - \$4.83 per pan per day	7 pans X 15 days X \$4.83 =	\$507.15

Animal Labor (Technician and PI - \$50.00 per hour)		
Day 1 - injection, bleed, processing	8 hours X \$50.00 =	\$400.00
Day 15 - injection, bleed, processing	8 hours X \$50.00 =	\$400.00
Day 30 - challenge, bleed, processing, plate counts	8 hours X \$50.00 =	\$400.00
Day 32 - bleed, processing	4 hours X \$50.00 =	\$200.00
15 days of after-hours animal observations	30 hours X \$50.00 =	\$1,500.00

Spore Production labor		
70 hours X \$50.00 per hour =		\$3,500.00

Data Collection and collation labor		
20 hours X \$50.00 per hour =		\$1,000.00

Supplies and equipment usage (animals and spores)		\$1,000.00
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TOTAL DIRECT COSTS =	\$10,107.80
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TOTAL INDIRECT COSTS =	??????????????
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\*\*\*\*\*

Here are my questions & comments on the protocol:

- 1) Who supplies the RIBI adjuvant and the 34F2 strain of the Sterne vaccine?
- 2) Who supplies the spore surface proteins?
- 3) Is EMThrax aware of the differences between the Sterne strain and the challenge Delta-Ames strain, and that significant spore differences can exist between them?
- 4) Are we supposed to mix the vaccines, or will they do it and give them to us to inject?
- 5) Have they talked to (b) (6) and (b) (6) about their work, which is along similar lines?
- 6) This work is supposed to take place in (b)(2) but the Delta-Ames challenge strain is worked with at USAMRIID only in (b)(2) conditions. This will make the second part of the work (post challenge) more difficult and time-consuming.
- 7) I've included the making of Delta-Ames challenge spores in the budget. Is this appropriate, or does EMThrax already have challenge spores for us to use?
- 8) If this hasn't gone through the USAMRIID LACUC, it will need to do so. Also, if it does, then who writes it up? I didn't include any costs for preparation of the protocol.

9) Does EMThrax want the serum from the mice? What about serum after challenge (when it's in the (b)(2) suite)?

10) Plating to determine a "successful challenge" should be done on sheep blood agar, not sporulation media. Also, I doubt that plating two days after challenge will automatically demonstrate Delta-Ames bacteremia. I'd suggest plating of terminal blood for isolated colonies to demonstrate that animals died from from the anthrax challenge.

Lastly, where should we go from here? Do we notify (b) (6) who appears to have been in contact with EMThrax? Since I haven't dealt with (b) on this, (b) would you (or (b) (6)) want to contact him? There are a number of things that need to be worked out, but the project is definitely doable.

Bruce Ivins

(b) (6)

> \_\_\_\_\_

>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps

>  
>Bruce,  
>  
>Would you be interested in doing this study?

>  
>Thanks,

>  
>(b) (6)

>  
>-----  
>  
>

>Any in rest in collaborating with these guys? Please read below.

>  
>(b) (6)

>  
>  
>  
>

> \_\_\_\_\_

>  
>From: (b) (6)  
>Sent: Monday, July 03, 2006 12:58 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
>(b) (6)

>  
>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

>

(b) (6)

>

>

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Friday, June 30, 2006 1:56 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: Vaccine project, next steps

>Good Morning,

>

>EMThrax is prepared to move forward with in-vivo testing of a novel vaccine. Attached is a brief description of the work they would like to have performed at your facility.

>

>The point of contact for EMThrax is (b) (6). They are in the process of moving into a new office/lab and will have a new physical address in the next week or so, but (b) (6) can be reached by email and phone as follows:

>

>(b) (6)

>

>Please let me know how we should proceed to move this project forward. I would be happy to arrange a call with EMThrax to discuss details of the work they would like to have done.

>

>

>Regards,

>

(b) (6)

[Redacted signature block]

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Friday, April 21, 2006 7:31 AM

>To: (b) (6)

>Cc: (b) (6)

>Subject: RE: Vaccine overview

>

(b) (6)

>

>We certainly are capable of doing the work described below. Be happy to discuss the possibility further with the company, if they wish.

>

>Regards,

>

(b) (6)

>(b) (6)

>

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Thursday, April 20, 2006 4:40 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: Vaccine overview

>Thank you for discussing the possible project related to testing of a new anthrax vaccine. As discussed, below are a simplified overview of the technology and a general discussion of the testing they would like to have performed. If this is something that could be performed at your facility, I would like to set up a call with EMThrax to discuss the path forward.

>

>Technology Overview

>The EMThrax vaccine is a spore based vaccine that targets anthrax BEFORE the infection begins, unlike the current vaccines that target the disease AFTER infection has begun. All of the components of the vaccine are found in natural abundance within the spore so there is no need to artificially produce any of the components of the vaccine. Furthermore, the EMThrax anthrax vaccine will be able to provide protection from multiple strains Bacillus anthracis (anthrax).

>

>

>

>During an anthrax attack "fluffy" spores are released into the environment, which are then inhaled by people. The spores are picked up in the lungs by immune cells where they transform into vegetative cells. This process releases three toxins that ultimately results in death. All current technologies focus on combating one of these toxins known as Protective Antigen (PA). These vaccines only work AFTER infection has begun. EMThrax, LLC has developed a method that prevents the spores from releasing these toxins, thus preventing the infection at an earlier stage.

>

>Potential Lab Testing

>EMThrax, LLC anticipates between 2-3 animal experiments that will involve the use of mice. The first level of analysis will only require (b)(2) space with select agent approval. Upon successful completion of this mouse model, then a series of animal experiments using guinea pigs will be employed. A guinea pig model will require the use of a (b)(2) facility and select agent approval. We anticipate the need for (b)(2) facilities within 6 months. The difference between the two models is that mice only require strains of anthrax that contain PXO2+, which is non-virulent to humans; whereas guinea pigs require both PXO1+ and PXO2+, which is virulent to humans. Upon successful completion of a guinea pig model, a rabbit model will be employed to demonstrate protection of our vaccine against inhalation anthrax.

>

>If possible, I would like to set up a call next week with EMThrax to discuss the project in more detail. Please let me know a time that is convenient for you.

>

>

>Regards,

>

>(b) (6)

[Redacted signature block]

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Thursday, April 20, 2006 1:19 PM

>To: (b) (6)  
>Cc: (b) (6)  
>Subject: RE: Anthrax vaccine

>

(b) (6)

>

>If you can give me an idea of what your product candidate is and level of maturity, it would help us to assess our level of interest in context of all the other anthrax testing that we already have on our plate. Feel free to contact me.

>

>Regards,

>

>(b) (6)

[Redacted signature block]

>

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>

>

>

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6); [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** FW: Vaccine project, next steps  
**Date:** Tuesday, July 11, 2006 12:40:58 PM  
**Attachments:**

---

I've looked over the animal protocol and I have some comments about it. First of all, though, I have a budget of DIRECT costs. (No indirect costs or overhead costs figured into this.)

Swiss Webster mouse cost = \$3.70 per mouse	62 mice X \$3.70 =	\$229.40
Housing costs - (b)(2) - \$3.75 per pan per day	7 pans X 37 days X \$3.75 =	\$971.25
Housing costs - (b)(2) - \$4.83 per pan per day	7 pans X 15 days X \$4.83 =	\$507.15

Animal Labor (Technician and PI - \$50.00 per hour)		
Day 1 - injection, bleed, processing	8 hours X \$50.00 =	\$400.00
Day 15 - injection, bleed, processing	8 hours X \$50.00 =	\$400.00
Day 30 - challenge, bleed, processing, plate counts	8 hours X \$50.00 =	\$400.00
Day 32 - bleed, processing	4 hours X \$50.00 =	\$200.00
15 days of after-hours animal observations	30 hours X \$50.00 =	\$1,500.00

Spore Production labor		
70 hours X \$50.00 per hour =		\$3,500.00

Data Collection and collation labor		
20 hours X \$50.00 per hour =		\$1,000.00

Supplies and equipment usage (animals and spores)		\$1,000.00
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TOTAL DIRECT COSTS =	\$10,107.80
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TOTAL INDIRECT COSTS =	??????????????
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\*\*\*\*\*

Here are my questions & comments on the protocol:

- 1) Who supplies the RIBI adjuvant and the 34F2 strain of the Sterne vaccine?
- 2) Who supplies the spore surface proteins?
- 3) Is EMThrax aware of the differences between the Sterne strain and the challenge Delta-Ames strain, and that significant spore differences can exist between them?
- 4) Are we supposed to mix the vaccines, or will they do it and give them to us to inject?
- 5) Have they talked to (b) (6) and (b) (6) about their work, which is along similar lines?
- 6) This work is supposed to take place in (b)(2) but the Delta-Ames challenge strain is worked with at USAMRIID only in (b)(2) conditions. This will make the second part of the work (post challenge) more difficult and time-consuming.
- 7) I've included the making of Delta-Ames challenge spores in the budget. Is this appropriate, or does EMThrax already have challenge spores for us to use?
- 8) If this hasn't gone through the USAMRIID LACUC, it will need to do so. Also, if it does, then who writes it up? I didn't include any costs for preparation of the protocol.

9) Does EMThrax want the serum from the mice? What about serum after challenge (when it's in the (b)(2) suite)?

10) Plating to determine a "successful challenge" should be done on sheep blood agar, not sporulation media. Also, I doubt that plating two days after challenge will automatically demonstrate Delta-Ames bacteremia. I'd suggest plating of terminal blood for isolated colonies to demonstrate that animals died from from the anthrax challenge.

Lastly, where should we go from here? Do we notify (b) (6) who appears to have been in contact with EMThrax? Since I haven't dealt with (b) on this, (b) would you (or (b) (b)) want to contact him? There are a number of things that need to be worked out, but the project is definitely doable.

Bruce Ivins

(b) (6)

> \_\_\_\_\_

>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps

>  
>Bruce,  
>  
>Would you be interested in doing this study?

>  
>Thanks,

>  
>(b) (6)

>  
>-----  
>  
>

>Any in rest in collaborating with these guys? Please read below.

>  
>(b) (6)

>  
>  
>  
>

> \_\_\_\_\_

>  
>From: (b) (6)  
>Sent: Monday, July 03, 2006 12:58 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
>(b) (6)

>  
>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

>

> (b) (6)

>

>

> \_\_\_\_\_

>

>From: (b) (6) ]

>Sent: Friday, June 30, 2006 1:56 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: Vaccine project, next steps

>Good Morning,

>

>EMThrax is prepared to move forward with in-vivo testing of a novel vaccine. Attached is a brief description of the work they would like to have performed at your facility.

>

>The point of contact for EMThrax is (b) (6). They are in the process of moving into a new office/lab and will have a new physical address in the next week or so, but (b)(6) can be reached by email and phone as follows:

>

> (b) (6)

>

>Please let me know how we should proceed to move this project forward. I would be happy to arrange a call with EMThrax to discuss details of the work they would like to have done.

>

>

>Regards,

>

> (b) (6)

[Redacted signature block]

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Friday, April 21, 2006 7:31 AM

>To: (b) (6)

>Cc: (b) (6)

>Subject: RE: Vaccine overview

>

> (b) (6)

>

>We certainly are capable of doing the work described below. Be happy to discuss the possibility further with the company, if they wish.

>

>Regards,

>

> (b) (6)

>(b) (6)

>

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Thursday, April 20, 2006 4:40 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: Vaccine overview

>Thank you for discussing the possible project related to testing of a new anthrax vaccine. As discussed, below are a simplified overview of the technology and a general discussion of the testing they would like to have performed. If this is something that could be performed at your facility, I would like to set up a call with EMThrax to discuss the path forward.

>

>Technology Overview

>The EMThrax vaccine is a spore based vaccine that targets anthrax BEFORE the infection begins, unlike the current vaccines that target the disease AFTER infection has begun. All of the components of the vaccine are found in natural abundance within the spore so there is no need to artificially produce any of the components of the vaccine. Furthermore, the EMThrax anthrax vaccine will be able to provide protection from multiple strains Bacillus anthracis (anthrax).

>

>

>

>During an anthrax attack "fluffy" spores are released into the environment, which are then inhaled by people. The spores are picked up in the lungs by immune cells where they transform into vegetative cells. This process releases three toxins that ultimately results in death. All current technologies focus on combating one of these toxins known as Protective Antigen (PA). These vaccines only work AFTER infection has begun. EMThrax, LLC has developed a method that prevents the spores from releasing these toxins, thus preventing the infection at an earlier stage.

>

>Potential Lab Testing

>EMThrax, LLC anticipates between 2-3 animal experiments that will involve the use of mice. The first level of analysis will only require (b)(2) space with select agent approval. Upon successful completion of this mouse model, then a series of animal experiments using guinea pigs will be employed. A guinea pig model will require the use of a (b)(2) facility and select agent approval. We anticipate the need for BSL-3 facilities within 6 months. The difference between the two models is that mice only require strains of anthrax that contain PXO2+, which is non-virulent to humans; whereas guinea pigs require both PXO1+ and PXO2+, which is virulent to humans. Upon successful completion of a guinea pig model, a rabbit model will be employed to demonstrate protection of our vaccine against inhalation anthrax.

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>Regards,

>

>(b) (6)

[REDACTED]

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Thursday, April 20, 2006 1:19 PM ]

>To: (b) (6)  
>Cc: (b) (6)  
>Subject: RE: Anthrax vaccine

>

>(b) (6)

>

>If you can give me an idea of what your product candidate is and level of maturity, it would help us to assess our level of interest in context of all the other anthrax testing that we already have on our plate. Feel free to contact me.

>

>Regards,

>

(b) (6)

>

>

>

>

>

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** FW: Vaccine project, next steps  
**Date:** Wednesday, July 12, 2006 1:55:46 PM  
**Attachments:** [redacted]

---

(b) (6)

Could you please look over the proposed budget for the EMThrax and make comments, criticisms and suggestions? Thanks!

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps

>  
>Bruce,  
>  
>Would you be interested in doing this study?  
>  
>Thanks,

(b) (6)

>  
>-----  
>  
>  
>Any in rest in collaborating with these guys? Please read below.

(b) (6)

> \_\_\_\_\_  
>  
>From: (b) (6)  
>Sent: Monday, July 03, 2006 12:58 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

(b) (6)

>  
>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Great batches of spores!  
**Date:** Wednesday, August 16, 2006 8:19:55 AM

---

Hi, (b) (6)

I just wanted to tell you that your last two batches of spores (May 18 and May 25) were beautiful, the best you've ever sent us. Whatever you did, keep it up! I've honestly never seen fermentor spores in such a high quality. Nice and white prep, very few vegetative cells or non-refractile spores. They're extremely easy to purify, which is also great.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Great batches of spores!  
**Date:** Wednesday, August 16, 2006 8:19:55 AM

---

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Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** Guinea pig challenge  
**Date:** Thursday, July 20, 2006 2:34:33 PM

---

The guinea pigs were challenged yesterday, 19 Jul 06, with the following:

Group 1 - approximately 1,000 - 1,100 spores IM  
Group 2 - 105.6 spores IM  
Group 3 - 11.6 spores IM  
Group 4 - 11.6 spores SC  
Group 5 - 2.2 spores IM

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Irradiated spores  
**Date:** Wednesday, July 19, 2006 9:59:18 AM

---

Fourteen ml of Select Agent 1749 spores,  $1 \times 10^9$ /ml, were irradiated with 4 MegaRads on June 30, 2006. Ten Sheep blood agar plates were inoculated with 0.1 ml per plate of the irradiated spores. The plates were incubated at 37C. No growth was seen on any of the plates after 24 or 72 hours incubation.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** More info on the transfer  
**Date:** Thursday, July 20, 2006 3:29:43 PM  
**Attachments:** [redacted]

---

Here are the two emails on the transfer in March.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Narrative on (b) (6) accomplishments for this past year  
**Date:** Monday, July 03, 2006 3:05:52 PM  
**Attachments:** [Redacted]

---

Enclosed is the narrative on (b) (6) accomplishments for the past year (for the 70-R-E).

Bruce Ivins

(b) (6)  
[Redacted]



(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** NBACC purchased equipment  
**Date:** Thursday, August 10, 2006 1:24:56 PM  
**Attachments:** [Redacted]

---

Here you are, (b) (6)

In addition, you have the following items on your hand receipt that NBACC purchased for the production facility:

- F7722
- F7744
- F7727
- F76344
- F7641
- F8540

Bruce Ivins

(b) (6)  
[Redacted]

---

**From:** (b) (6)  
**Sent:** Thursday, August 10, 2006 12:55 PM  
**To:** Ivins, Bruce E Dr USAMRIID; (b) (6)  
**Subject:**

Do you have that list of equipment purchased by NBACC for the production facility as an electronic version? I need to forward the electrons.....

(b) (6)  
[Redacted]

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** NIAID data so far  
**Date:** Thursday, July 06, 2006 4:08:24 PM  
**Attachments:** [REDACTED]

---

(b) [REDACTED]

Enclosed is the NIAID data so far.

Bruce Ivins

(b) (6)  
[REDACTED]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** PFM: Form: (b) (6) performance appraisal  
**Date:** Thursday, July 13, 2006 9:23:31 AM  
**Attachments:** [REDACTED]

---

Electronic Form MRMC 71 has been Sent to Your Mail Box.  
Please use the AEFSS E-Forms Management System to Access this Form.

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Pictures of tubes of spores for NIAID  
**Date:** Wednesday, June 28, 2006 8:06:52 AM  
**Attachments:** [Redacted]

---

Pictures of tubes of spores made in different media.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: B. anthracis Strains for PCR and TIGR analysis  
**Date:** Wednesday, July 05, 2006 11:08:18 AM

---

There are a total of 8 tubes for each analysis (TIGR and PCR). For each set of 8 tubes, two will be 1% phenol (negative control), and one will be irradiated spores (non-viable). The other five in each will be viable. Will that be OK?

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Wednesday, July 05, 2006 10:56 AM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Cc:** (b) (6)  
**Subject:** RE: B. anthracis Strains for PCR and TIGR analysis

Are these live or killed? (b) (6) will have to coordinate the testing with her personnel, but they have another round of the multicenter trial to do on Thursday, Friday, Monday, and Tuesday. PCR testing will probably not be possible until middle to end of next week.

(b) (6)

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Wednesday, July 05, 2006 9:27 AM  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** B. anthracis Strains for PCR and TIGR analysis

Hi (b)

We'd like to give you 8 samples of B. anthracis strains (with two negative controls included) to test via PCR, and 8 samples (including 2 negative controls) to test via TIGR analysis. We can give them to you late this afternoon or, if you'd rather, tomorrow sometime. Please let me know, and we'll have them ready for you. Thanks.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: B. anthracis Strains for PCR and TIGR analysis  
**Date:** Thursday, July 06, 2006 8:18:58 AM

---

That's good, (b) (6)

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Wednesday, July 05, 2006 2:18 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Cc:** (b) (6)  
**Subject:** RE: B. anthracis Strains for PCR and TIGR analysis

Bruce:

I can take receipt of the material tommorrow morning between 1000 and 1030 if that works for you.

(b) (6)

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Wednesday, July 05, 2006 11:08 AM  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: B. anthracis Strains for PCR and TIGR analysis

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Bruce Ivins

(b) (6)

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Sent: Wednesday, July 05, 2006 10:56 AM

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Cc: (b) (6)

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(b) (6)

---

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Cc: (b) (6)

Subject: B. anthracis Strains for PCR and TIGR analysis

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Bruce Ivins

(b) (6)

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Subject: RE: (b)(2)  
Date: Wednesday, July 12, 2006 8:20:52 AM

---

Bruce Ivins

(b) (6)

---

From: Ivins, Bruce E Dr USAMRIID  
Sent: Wednesday, July 12, 2006 8:20 AM  
To: (b) (6)  
Subject: FW: (b)(2)

(b) (6)

I have select agents in the (b) (2) , in the (b) (2) , and in the (b) (6)

Bruce Ivins

(b) (6)

---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 3:02 PM  
To: (b) (6)

Ivins, Bruce E Dr USAMRIID; (b) (6)

Cc: (b) (6)  
Subject: FW: (b)(2)

Hello (b)(2) folks-

Please ask your lab personnel ff anyone is storing stocks of select agent in a -20C freezer. If so, please provide the location of this freezer and MMCN# to (b) (6)

Thanks-

(b)

---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 1:56 PM  
To: (b) (6)  
Subject: RE: (b)(2)

(b) (6)

(b) (6) says yes to the -20 freezers if people are storing agents in there.

Thanks,

(b)

---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 2:49 PM  
To: (b) (6)  
Cc: (b) (6)  
Bruce E Dr USAMRIID; (b) (6)  
Subject: (b)(2)

Ivins,

Hello (b) (6)

I am assuming you are only after -70C freezers for frozen stocks and not -20°C freezers? If so, this mostly covers (b)(2). One room is locked with only access to a few people. (b) could you provide the MMCN # for room (b)(2)?

All of the freezers listed below contain frozen stocks of Ba and Yp.

(b)(2) hallway MMCN# F4713 (b) (6)

(b)(2) #F8144 (b) (6)

(b)(2) hallway #F8259 (b) (6)

(b)(2) hallway #F3893 (b) (6)

FYI—we have been asked by Facilities Management to swap out our freezers for some other version, so these MMCN #'s will soon be defunct.

Thanks-

(b) [REDACTED]

---

From: (b) (6) [REDACTED]  
Sent: Tuesday, July 11, 2006 1:37 PM  
To: (b) (6) [REDACTED]

Cc: (b) (6) [REDACTED]  
Subject: Freezer information request

Suite Supervisors,

In an effort to generate a comprehensive map of freezer locations for the CDC inspection, the Biosurety office is requesting that you please email me the MMCN and room numbers (or a location description) for the freezers in your suites. If BSAT is held in a refrigerator, include that information as well. I know you're busy, and we don't have much time, but I'd appreciate it if you can get back to me as soon as possible.

Thank you very much,

(b) (6) [REDACTED]



---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 3:02 PM  
To: (b) (6)

Ivins, Bruce E Dr USAMRIID; (b) (6)

Cc: (b) (6)  
Subject: FW: (b)(2)

Hello (b)(2) folks-

Please ask your lab personnel ff anyone is storing stocks of select agent in a -20C freezer. If so, please provide the location of this freezer and MMCN# to (b) (6)

Thanks-

(b)

---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 1:56 PM  
To: (b) (6)  
Subject: RE: (b)(2)

(b) (6)

(b) (6) says yes to the -20 freezers if people are storing agents in there.

Thanks,

(b)

---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 2:49 PM  
To: (b) (6)

Cc: (b) (6)

Ivins, Bruce E Dr USAMRIID; (b) (6)

Subject: (b)(2)

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(b)(2) hallway #F3893 (b) (6)

FYI—we have been asked by Facilities Management to swap out our freezers for some other version, so these MMCN #'s will soon be defunct.

Thanks-

(b) (6)

---

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To: (b) (6)

Cc: (b) (6)

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Thank you very much,

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Cepheid  
**Date:** Wednesday, August 02, 2006 1:45:58 PM

---

It's been dispensed. It's in a small beaker, top shelf of our refrigerator in the (b) (2) hallway, with a piece of yellow tape on it that says, "For Cepheid." It's ready to go, whenever somebody wants to get it. If more is desired, we'll need to purify more.

Bruce Ivins

(b) (6)

>  
>From: (b) (6)  
>Sent: Wednesday, August 02, 2006 1:31 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Cepheid

>  
>Thanks again!

>  
>(b) (b)

>  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Wednesday, August 02, 2006 1:20 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: RE: Cepheid

>  
>OK. It'll be a small Nunc tube inside a 15-ml conical tube. Labels:

>  
>Bacillus anthracis  
>Delta Sterne  
>1 X 10e9/ml  
>0.5 ml  
>Irradiated

>  
>Bruce Ivins

(b) (6)

>  
>  
>  
>From: (b) (6)  
>Sent: Wednesday, August 02, 2006 8:37 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Cepheid

>  
>Thanks Bruce,

>  
>I am going to try and ship it out Thursday. I am waiting for the billing information first.

>  
(b) (6)

>

> \_\_\_\_\_

>From: Ivins, Bruce E Dr USAMRIID

>Sent: Tuesday, August 01, 2006 4:29 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: RE: Cepheid

>

>I have it ready. When do you want it? It's exactly the same material as we gave Northrup Grumman.

>

>Bruce Ivins

(b) (6)

>

>

> \_\_\_\_\_

>From: (b) (6)

>Sent: Tuesday, August 01, 2006 4:17 PM

>To: Ivins, Bruce E Dr USAMRIID

>Cc: (b) (6)

>Subject: Cepheid

>

>Bruce,

>Cepheid would like 0.5 ml of  $1 \times 10^9$  irradiated spores.

(b) (6)

>

>(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Cepheid  
**Date:** Wednesday, August 02, 2006 1:19:43 PM

---

OK. It'll be a small Nunc tube inside a 15-ml conical tube. Labels:

Bacillus anthracis  
Delta Sterne  
1 X 10<sup>9</sup>/ml  
0.5 ml  
Irradiated

Bruce Ivins

(b) (6)

>  
>-----  
>From: (b) (6)  
>Sent: Wednesday, August 02, 2006 8:37 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Cepheid

>  
>Thanks Bruce,  
>  
>I am going to try and ship it out Thursday. I am waiting for the billing information first.

>  
>(b) (6)

>  
>-----  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Tuesday, August 01, 2006 4:29 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: RE: Cepheid

>  
>I have it ready. When do you want it? It's exactly the same material as we gave Northrup Grumman.

>  
>Bruce Ivins

>(b) (6)

>  
>  
>-----  
>From: (b) (6)  
>Sent: Tuesday, August 01, 2006 4:17 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Cc: (b) (6)  
>Subject: Cepheid

>  
>Bruce,  
>Cepheid would like 0.5 ml of 1 x 10<sup>9</sup> irradiated spores.

>(b) (6)

>

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Cepheid  
**Date:** Tuesday, August 01, 2006 4:29:20 PM

---

I have it ready. When do you want it? It's exactly the same material as we gave Northrup Grumman.

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
> From: (b) (6)  
> Sent: Tuesday, August 01, 2006 4:17 PM  
> To: Ivins, Bruce E Dr USAMRIID  
> Cc: (b) (6)  
> Subject: Cepheid  
>  
> Bruce,  
> Cepheid would like 0.5 ml of  $1 \times 10^9$  irradiated spores.

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Cepheid  
**Date:** Thursday, August 03, 2006 11:35:02 AM

---

Sorry - It's Irradiated Ames, SA# 1749

Bruce Ivins

(b) (6)

>  
>From: (b) (6)  
>Sent: Thursday, August 03, 2006 8:51 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Cepheid

>  
>Is this B. anthracis Ames irradiated or delta Sterne??

>  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Wednesday, August 02, 2006 1:20 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: RE: Cepheid

>OK. It'll be a small Nunc tube inside a 15-ml conical tube. Labels:

>  
>Bacillus anthracis  
>Delta Sterne  
>1 X 10e9/ml  
>0.5 ml  
>Irradiated

>Bruce Ivins

(b) (6)

>  
>  
>From: (b) (6)  
>Sent: Wednesday, August 02, 2006 8:37 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Cepheid

>Thanks Bruce,

>  
>I am going to try and ship it out Thursday. I am waiting for the billing information first.

>  
>(b) (6)

>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Tuesday, August 01, 2006 4:29 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: RE: Cepheid

>  
>I have it ready. When do you want it? It's exactly the same material as we gave Northrup Grumman.

>Bruce Ivins

(b) (6)

>

>

>

---

>From: (b) (6)  
>Sent: Tuesday, August 01, 2006 4:17 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Cc: (b) (6)  
>Subject: Cepheid

>

>Bruce,

>Cepheid would like 0.5 ml of  $1 \times 10^9$  irradiated spores.

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: EMThrax proposal budget  
**Date:** Monday, July 17, 2006 2:25:40 PM  
**Attachments:** [REDACTED]

---

Here you are!

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, July 13, 2006 1:33 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: EMThrax proposal budget

(b)

Please fill this out and send to me so I can send it to the PMC.

(b) (6)

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Thursday, July 13, 2006 1:20 PM  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** EMThrax proposal budget

Here is the proposed, revised budget for the EMThrax vaccine study. We still need to have a meeting or teleconference with them to work out some questions. I'd intend it for the first quarter of FY07, but that could be moved into the second or third quarter, depending on our capabilities and the needs of EMThrax. When we write the CRDA, how could we structure it so that the money doesn't get taken from us (from up front), and perhaps extend some payment (salaries?) into FY08, since FY07 is already covered?

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: Freezer information request  
**Date:** Thursday, July 20, 2006 11:43:49 AM

---

(b) (6)  
I store my select agents in the (b) (2) in the (b) (2) and  
in the (b) (2)

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, July 20, 2006 7:55 AM  
**To:** (b) (6)

Ivins, Bruce E Dr USAMRIID; (b) (6)

**Cc:** (b) (6)  
**Subject:** Freezer information request  
**Importance:** High

Greetings Everyone,

In an effort to create a comprehensive map of our freezers where we store select agents, the Biosurety Office is asking that you send me a list of the freezer MMCNs and room numbers where you store your select agents. You don't need to tell me what's in each freezer, just which ones have select agents in them. Some of you might ask why we can't pull the information out of the AIMS? We did try, but there were conflicting room numbers for some of the freezers and I don't believe all the freezers that are storing BSAT (and the BSAT) have been accounted for yet in AIMS. If the freezer is in a hallway, just say for example (b)(2) hallway". We want to put this together before the CDC gets here on the 31st, so I'd appreciate the information as soon as possible. If you have already sent me your information through another request, you don't need to resend it.

Thank you very much,

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** [Ivins, Bruce E Dr USAMRIID](#); (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: GP challenge  
**Date:** Wednesday, July 12, 2006 3:44:46 PM

---

(b) (6)

Could you make up 5 labels on the labelmaker as follows: (for 20-ml vials of challenge spores):

Group1  
HHS Spores  
1,000 per 0.2 ml  
IM

Group2  
HHS Spores  
100 per 0.2 ml  
IM

Group3  
HHS Spores  
10 per 0.2 ml  
IM

Group4  
HHS Spores  
10 per 0.2 ml  
SC

Group5  
HHS Spores  
1 per 0.2 ml  
IM

We'll Make up the spores right before challenge on Wednesday, then plate them out.

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
> From: Ivins, Bruce E Dr USAMRIID  
> Sent: Wednesday, July 12, 2006 10:34 AM  
> To: (b) (6)  
> Cc: (b) (6); Ivins, Bruce E Dr USAMRIID  
> Subject: RE: GP challenge

>  
> Can we do this Wednesday of next week?

>  
> Bruce Ivins

(b) (6)

>  
>  
> \_\_\_\_\_

>From: (b) (6)  
>Sent: Wednesday, July 12, 2006 8:47 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: GP challenge

>  
>HHS, same as what we have been using for the other experiments.

>  
>-----  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Wednesday, July 12, 2006 8:39 AM  
>To: (b) (6)  
>Subject: RE: GP challenge

>  
>What lot of spores, (b) (6)

>  
>Bruce Ivins

(b) (6)

>  
>-----  
>From: (b) (6)  
>Sent: Wednesday, July 12, 2006 8:38 AM  
>To: (b) (6)  
>Cc: Ivins, Bruce E Dr USAMRIID  
>Subject: GP challenge

>  
>Could you set-up for a B. anthracis Ames challenge this week?

>  
> 1,000 spores IM 10 guinea pigs  
> 100 spores IM 10 guinea pigs  
> 10 spores IM 10 guinea pigs  
> 10 spores SQ 10 guinea pigs  
> 1 spore IM 10 guinea pigs

>  
>These are 'older' guinea pigs that arrived 28 June (450-500 g). They are in (b)(2)

>Thanks,

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6) [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** RE: GP challenge  
**Date:** Wednesday, July 12, 2006 10:34:29 AM

---

Can we do this Wednesday of next week?

Bruce Ivins

(b) (6)

---

> **From:** (b) (6)  
> **Sent:** Wednesday, July 12, 2006 8:47 AM  
> **To:** Ivins, Bruce E Dr USAMRIID  
> **Subject:** RE: GP challenge

>  
> HHS, same as what we have been using for the other experiments.

---

> **From:** Ivins, Bruce E Dr USAMRIID  
> **Sent:** Wednesday, July 12, 2006 8:39 AM  
> **To:** (b) (6) RIID  
> **Subject:** RE: GP challenge

>  
> What lot of spores, (b) (6)

>  
> Bruce Ivins

(b) (6)

---

> **From:** (b) (6)  
> **Sent:** Wednesday, July 12, 2006 8:38 AM  
> **To:** (b) (6)  
> **Cc:** Ivins, Bruce E Dr USAMRIID  
> **Subject:** GP challenge  
>  
> Could you set-up for a B. anthracis Ames challenge this week?

>  
> 1,000 spores IM 10 guinea pigs  
> 100 spores IM 10 guinea pigs  
> 10 spores IM 10 guinea pigs  
> 10 spores SQ 10 guinea pigs  
> 1 spore IM 10 guinea pigs

>  
> These are 'older' guinea pigs that arrived 28 June (450-500 g). They are in (b)(2)

> Thanks,

(b) (6)

(b) (6)

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6); (b) (6); [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** RE: GP challenge  
**Date:** Wednesday, July 12, 2006 10:34:29 AM

---

Can we do this Wednesday of next week?

Bruce Ivins

(b) (6)

---

> **From:** (b) (6)  
> **Sent:** Wednesday, July 12, 2006 8:47 AM  
> **To:** Ivins, Bruce E Dr USAMRIID  
> **Subject:** RE: GP challenge

> HHS, same as what we have been using for the other experiments.

---

> **From:** Ivins, Bruce E Dr USAMRIID  
> **Sent:** Wednesday, July 12, 2006 8:39 AM  
> **To:** (b) (6)  
> **Subject:** RE: GP challenge

> What lot of spores, (b) (6)

> Bruce Ivins

(b) (6)

---

> **From:** (b) (6)  
> **Sent:** Wednesday, July 12, 2006 8:38 AM  
> **To:** (b) (6)  
> **Cc:** Ivins, Bruce E Dr USAMRIID  
> **Subject:** GP challenge

> Could you set-up for a B. anthracis Ames challenge this week?

> 1,000 spores IM 10 guinea pigs  
> 100 spores IM 10 guinea pigs  
> 10 spores IM 10 guinea pigs  
> 10 spores SQ 10 guinea pigs  
> 1 spore IM 10 guinea pigs

> These are 'older' guinea pigs that arrived 28 June (450-500 g). They are in (b)(2)

> Thanks,

(b) (6)

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: GP challenge  
**Date:** Wednesday, July 12, 2006 8:39:27 AM

---

What lot of spores, (b) (6)

Bruce Ivins

(b) (6)

>  
>From: (b) (6)  
>Sent: Wednesday, July 12, 2006 8:38 AM  
>To: (b) (6)  
>Cc: Ivins, Bruce E Dr USAMRIID  
>Subject: GP challenge  
>  
>Could you set-up for a B. anthracis Ames challenge this week?  
>  
> 1,000 spores IM 10 guinea pigs  
> 100 spores IM 10 guinea pigs  
> 10 spores IM 10 guinea pigs  
> 10 spores SQ 10 guinea pigs  
> 1 spore IM 10 guinea pigs  
>

>These are 'older' guinea pigs that arrived 28 June (450-500 g). They are in (b)(2)

>Thanks,

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: GP challenge  
**Date:** Friday, August 25, 2006 2:36:23 PM

---

OK. We'll get them taken care of.

Bruce Ivins

(b) (6)

>  
> From: (b) (6)  
> Sent: Friday, August 25, 2006 1:37 PM  
> To: Ivins, Bruce E Dr USAMRIID; Bassett (b) (6)  
> Subject: GP challenge  
>  
> Bruce,  
> Could we schedule for a guinea pig B. anthracis Ames HHS lot challenge next week 29/30 August?  
>  
> 10 guinea pigs 100 spores/0.2 ml SQ  
> 10 guinea pigs 10 spores/0.2 ml SQ  
> 10 guinea pigs 3 spores/0.2 ml SQ  
> 10 guinea pigs 1 spore/0.2 ml SQ  
>  
> 10 guinea pigs 10 spores/0.2 ml ID  
>  
> Thanks,

> (b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Great batches of spores!  
**Date:** Wednesday, August 16, 2006 9:25:53 AM

---

(b) (6)

It'll take us the rest of the month to finish the purification and characterization of the two batches of Dugway spores we just got. When should we ask for the next batches? In the September-October timeframe? We won't be pushed for getting new material right away, so even if it's a few months, we're set for spore requests for awhile. Again, I want to emphasize how beautiful the last two batches were.

Bruce Ivins

(b) (6)

---

**From:** (b) (6) ]  
**Sent:** Wednesday, August 16, 2006 9:18 AM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Cc:** (b) (6)  
**Subject:** RE: Great batches of spores!

Glad to hear it Bruce. Any idea when you all may want us to resume?

---

**From:** Ivins, Bruce E Dr USAMRIID [<mailto:bruce.ivins@us.army.mil>]  
**Sent:** Wednesday, August 16, 2006 5:20 AM  
**To:** (b) (6)  
**Cc:** (b) (6) (b)(6)  
**Subject:** Great batches of spores!

Hi (b) (6)

I just wanted to tell you that your last two batches of spores (May 18 and May 25) were beautiful, the best you've ever sent us. Whatever you did, keep it up! I've honestly never seen fermentor spores in such a high quality. Nice and white prep, very few vegetative cells or non-refractile spores. They're extremely easy to purify, which is also great.

Bruce Ivins

(b) (6)

A large black rectangular redaction covers the majority of the page content, starting below the text '(b) (6)' and extending across the width of the page.

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Great batches of spores!  
**Date:** Wednesday, August 16, 2006 10:13:00 AM

---

Right - We can order (and pay for?) more batches this FY, and receive them the rest of the calendar year (and into 2007??) Some spore batches are brownish-gray, but these were nice and white. I think that non-refractile spores are like chicken eggs - white, bouncing off light. Non-refractile spores, vegetative cells and vegetative cell debris looks brown-gray. Pure spores are easy to resuspend, but spore preps with lots of debris can be extremely difficult to resuspend.

Again, beautiful job on the 18 MAY and 25 MAY spores.

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Wednesday, August 16, 2006 10:04 AM  
**To:** Ivins, Bruce E Dr USAMRIID; (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Great batches of spores!

I think that is fine. We want to use up some of our FY06 money so we should order at least 2 batches now so they can be started. I think we were shooting for 4 batches this year if possible since we know we have some rather large animal studies coming up in early FY07 as well as getting our reserve stock up to a healthy non-panic level for unexpected requests.

(b) (6)

Great Job--is there anything you "tweaked" in the protocol or fermenter that helped make these so much visually better?

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Wednesday, August 16, 2006 9:26 AM  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Great batches of spores!

(b) (6)

It'll take us the rest of the month to finish the purification and characterization of the two batches of Dugway spores we just got. When should we ask for the next batches? In the September-October timeframe? We won't be pushed for getting new material right away, so even if it's a few months, we're

set for spore requests for awhile. Again, I want to emphasize how beautiful the last two batches were.

Bruce Ivins

(b) (6)

---

From: (b) (6) ]

Sent: Wednesday, August 16, 2006 9:18 AM

To: Ivins, Bruce E Dr USAMRIID

Cc: (b) (6)

Subject: RE: Great batches of spores!

Glad to hear it Bruce. Any idea when you all may want us to resume?

---

From: Ivins, Bruce E Dr USAMRIID [<mailto:bruce.ivins@us.army.mil>]

Sent: Wednesday, August 16, 2006 5:20 AM

To: (b) (6)

Cc: (b) (6)

Subject: Great batches of spores!

Hi, (b) (6)

I just wanted to tell you that your last two batches of spores (May 18 and May 25) were beautiful, the best you've ever sent us. Whatever you did, keep it up! I've honestly never seen fermentor spores in such a high quality. Nice and white prep, very few vegetative cells or non-refractile spores. They're extremely easy to purify, which is also great.

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6) [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** RE: Guinea pig challenge  
**Date:** Tuesday, August 08, 2006 2:46:07 PM

---

OK

Bruce Ivins

(b) (6)

(b) (6)

>

>From: (b) (6)

>Sent: Tuesday, August 08, 2006 11:10 AM

>To: Ivins, Bruce E Dr USAMRIID

>Cc: (b) (6)

>Subject: Guinea pig challenge

>

>Bruce,

>Would you please schedule for challenges of guinea pigs on 30 August with HHS spore lot?

>100, 10, 3, & 1 spores per 0.2 ml SQ (40 guinea pigs)

>10 spores per 0.2 ml ID (10 guinea pigs)

>Thanks,

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Protocol question  
**Date:** Thursday, July 06, 2006 3:50:50 PM

---

(b) (6) is the best source of information for you on this assay. I will forward this to him and suggest that you contact him at (b) (6)

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, July 06, 2006 2:24 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** Protocol question

Dr. Ivins,

I am very interested in using the antisera from our Phase I mouse immunogenicity trials (with the Bacterial Ghost – DNA vaccine) in the anthrax toxin neutralization assay using cultured macrophages. Do you have a protocol or reference I could use to set up this assay? Also, is it better to use PA83 or PA63 in this assay (it is unclear in the literature that I have looked at).

Thank you very much for your help.

Sincerely,

(b) (6)

(b) (6)

(b) (6)

(b) (6)

(b) (6)

(b) (6) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Reagents for SBIR study  
**Date:** Monday, June 26, 2006 3:43:04 PM

---

(b) (6) has some F1 which could be purchased by your firm if you so wish. I believe that (b) (6) would actually handle the transaction, so if you are interested, you could contact either (or both) of them.

Thank you for your response.

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Monday, June 26, 2006 2:24 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Cc:** (b) (6)  
**Subject:** RE: Reagents for SBIR study

Dr. Ivins,

We were able to produce some recombinant F1 protein in-house for our ELISA assays. However it would be a good control experiment to compare the results with our F1 protein with that from someone's stock at USAMRRID. In this case, we would require 100-200ug. We have also been working on MALDI-TOF MS based analysis of antibody binding sites from our pSIP vaccinated mouse sera. In this assay we take the recombinant protein (F1 or PA), digest with trypsin, incubate the digest with sera from vaccinated animals (or pre-immune sera) and perform MALDI-ROF MS. We can compare the spectra from F1 digested sample not incubated with sera, and incubated with pre-immune or post vaccinated sera. If an antibody binds one of the tryptic fragments, then that peak will disappear in the MS spectra. We have had good results so far with PA using this assay and our vaccinated mouse sera. We would like to do the same with F1. This would be an additional benefit to comparing our F1 protein results with those using F1 protein from USAMRIID.

Finally, I have attached some data for you from our studies. We performed a titer analysis on the day 42 sera (14 days after 3rd vaccination). The GMT was calculated using the titer point at which the OD values were  $>_2X$  over the mock vaccinated animals.

Thank you very much for your time and help with procurement of the F1 protein.

Sincerely,

(b) (6)

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

(b) (6)

---

From: Ivins, Bruce E Dr USAMRIID [<mailto:bruce.ivins@us.army.mil>]  
Sent: Friday, June 23, 2006 11:36 AM  
To: (b) (6)  
Cc: Ivins, Bruce E Dr USAMRIID  
Subject: RE: Reagents for SBIR study

(b) (6)

If you are still in need of F1 protein, please let me know. Also please let me know how much you would require. I am trying to identify sources for the material, but I'd need to know amounts before I could tell you if a scientist at USAMRIID could provide it to you, at what (if any) charge, or what commercial source could provide the material.

Thank you for your response. I hope to be able to provide you with the necessary information when I hear back from you.

Bruce Ivins

(b) (6)

[Redacted]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: Revco number is F7160  
**Date:** Wednesday, July 12, 2006 8:25:48 AM

---

Thanks!

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Tuesday, July 11, 2006 4:41 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** Revco number is F7160

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** [Ivins, Bruce E Dr USAMRIID](#); (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: SA #1749  
**Date:** Thursday, August 03, 2006 1:28:58 PM

---

Can you find out from them what they think a "ballpark" estimate might be for the next FY? That way I can process all of the spores at the same time, in one batch. If it's 300 ml at  $10^9$ /ml, then I'd do all 300 ml at one time. I don't want to irradiate the spores a number of times, and have to assay them each time. It's best to have them all the same. Thanks.

Bruce Ivins

(b) (6)

>

>From: (b) (6)  
>Sent: Thursday, August 03, 2006 12:45 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: SA #1749

>

>Bruce,

>1. Would you please set aside some of SA #1749 for further requests from ECBC-USPS-NGSS? Do you think that 10 ml would be enough? ( $10 \text{ ml} \times 3 \times 10^{10}/\text{ml} = 300$  requests at  $1 \times 10^9$ ) They will be asking for more of the same lot and for bridging studies.

>2. Would you ask (b) (6) to take pictures of SA #1749 before and after irradiation (both at  $1 \times 10^9$ /ml)?

>

(b) (6)

>

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: [Ivins, Bruce E Dr USAMRIID](#) (b) (6)  
Cc: (b) (6)  
Subject: RE: SA #1749  
Date: Thursday, August 03, 2006 1:28:58 PM

---

Can you find out from them what they think a "ballpark" estimate might be for the next FY? That way I can process all of the spores at the same time, in one batch. If it's 300 ml at  $10^9$ /ml, then I'd do all 300 ml at one time. I don't want to irradiate the spores a number of times, and have to assay them each time. It's best to have them all the same. Thanks.

Bruce Ivins

(b) (6)

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>To: Ivins, Bruce E Dr USAMRIID  
>Subject: SA #1749

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>

(b) (6)

>

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Cc: (b) (6)  
Subject: RE: SA #1749  
Date: Thursday, August 03, 2006 1:14:09 PM

---

OK. This would be a good opportunity for (b) (6) to learn about the scope and taking pictures, with (b) (6) help.

Bruce Ivins

(b) (6)

>

---

>From: (b) (6)  
>Sent: Thursday, August 03, 2006 12:45 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: SA #1749

>

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>2. Would you ask (b) (6) to take pictures of SA #1749 before and after irradiation (both at  $1 \times 10^9/\text{ml}$ )?

>

(b) (6)

>

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Cc: (b) (6); [Ivins, Bruce E Dr USAMRIID](#)  
Subject: RE: SA #1749  
Date: Thursday, August 03, 2006 1:14:09 PM

---

OK. This would be a good opportunity for (b) (6) to learn about the scope and taking pictures, with (b) (6) help.

Bruce Ivins

(b) (6)

>

---

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>To: Ivins, Bruce E Dr USAMRIID  
>Subject: SA #1749

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>2. Would you ask (b) (6) to take pictures of SA #1749 before and after irradiation (both at  $1 \times 10^9/\text{ml}$ )?

>

(b) (6)

>

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Cc: (b) (6)  
Subject: RE: SA #1749  
Date: Sunday, August 06, 2006 1:56:45 PM

---

Tomorrow went by with me somewhere else. Thanks (b) (6) I'll try to find out how much we'll need, then ask you to take some pictures.

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
> From: (b) (6)  
> Sent: Thursday, August 03, 2006 1:43 PM  
> To: Ivins, Bruce E Dr USAMRIID; (b) (6)  
> Cc: (b) (6); (b) (6)  
> Subject: RE: SA #1749  
>  
> Tomorrow morning is going to be really busy...but tomorrow after 2 or I should be free  
>

> \_\_\_\_\_  
> From: Ivins, Bruce E Dr USAMRIID  
> Sent: Thursday, August 03, 2006 1:14 PM  
> To: (b) (6)  
> Cc: (b) (6)  
> Ivins, Bruce E Dr USAMRIID  
> Subject: RE: SA #1749  
>

> OK. This would be a good opportunity for (b) (6) to learn about the scope and taking pictures, with (b) (6) help.

> Bruce Ivins  
(b) (6)

> \_\_\_\_\_  
> From: (b) (6)  
> Sent: Thursday, August 03, 2006 12:45 PM  
> To: Ivins, Bruce E Dr USAMRIID  
> Subject: SA #1749  
>

> Bruce,

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> (b) (6)

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: Samples  
**Date:** Tuesday, July 11, 2006 3:39:35 PM

---

CFU per ml, except the last one, which is sterile, but was expressed as CFU/ml.

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Tuesday, July 11, 2006 3:39 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Samples

Enumerated as spores/ml or CFU/ml? That should be my last question. :-)

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Tuesday, July 11, 2006 3:35 PM  
**To:** (b) (6)  
**Cc:** (b) (6) Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Samples

Here you are, (b) (6)

PCR Code

A -  $1.9 \times 10^{10}$ /ml

B -  $7 \times 10^9$ /ml

C - 1 % phenol control

D - 1 % phenol control

E - 1.7 X 10e10/ml

F - 1.5 X 10e10/ml

G - 1.9 X 10e10/ml

H - Gamma-irradiated (non-viable) at 1 X 10e9/ml

Bruce Ivins

(b) (6)

---

From: (b) (6)  
Sent: Tuesday, July 11, 2006 10:37 AM  
To: Ivins, Bruce E Dr USAMRIID  
Subject: Samples

Bruce,

Are there concentrations on the Ba tubes we have for testing? If so could you send me that information for each of the tubes? We need to make dilutions and I would like to prepare the paperwork before going in the suite tomorrow to do the testing.

Thanks,

(b) (6)

~~~~~  
(b) (6)

(b) (6) [Redacted]

[Redacted]

[Redacted]

[Redacted]

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: Spore request  
**Date:** Thursday, August 24, 2006 8:38:34 AM

---

OK. I'll need to get some paperwork signed. Stop by sometime soon to sign them if you can. Thanks!!

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Wednesday, August 23, 2006 5:54 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Spore request

i'll be in the suite, can someone bring them to our airlock bruce?  
thanks,

(b) (6)

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Wed 8/23/2006 4:01 PM  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Spore request

OK, How about 3 pm?

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Wednesday, August 23, 2006 3:06 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Spore request

Tomorrow maybe?

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Wednesday, August 23, 2006 3:03 PM  
**To:** (b) (6)  
**Subject:** RE: Spore request

Sure. When?

Bruce Ivins

(b) (6)

---

From: (b) (6)

Sent: Wednesday, August 23, 2006 2:52 PM

To: Ivins, Bruce E Dr USAMRIID; (b) (6)

Subject: Spore request

Bruce,

Could (b) (6) get 2 ml of 060403RIID7L (SA # 1749) at  $1 \times 10^9$  spores per ml?

(b) (6)

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Spore request  
**Date:** Wednesday, August 23, 2006 4:01:34 PM

---

OK, How about 3 pm?

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Wednesday, August 23, 2006 3:06 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Spore request

>  
>Tomorrow maybe?

> \_\_\_\_\_  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Wednesday, August 23, 2006 3:03 PM  
>To: (b) (6)  
>Subject: RE: Spore request

>  
>Sure. When?

>  
>Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Wednesday, August 23, 2006 2:52 PM  
>To: Ivins, Bruce E Dr USAMRIID; (b) (6)  
>Subject: Spore request

>  
>Bruce,

>Could (b) (6) get 2 ml of 060403RIID7L (SA # 1749) at  $1 \times 10^9$  spores per ml?

(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Spore request  
**Date:** Thursday, August 24, 2006 10:39:19 AM

---

Let's do it Monday morning, (b) (6) How about 9 am?

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, August 24, 2006 9:41 AM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Spore request

Hey there Bruce can we do it tomorrow, sorry for the screw up?

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Thursday, August 24, 2006 8:39 AM  
**To:** (b) (6)  
**Subject:** RE: Spore request

OK. I'll need to get some paperwork signed. Stop by sometime soon to sign them if you can. Thanks!!

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Wednesday, August 23, 2006 5:54 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** RE: Spore request

i'll be in the suite, can someone bring them to our airlock bruce?  
thanks,

(b) (6)

---

From: Ivins, Bruce E Dr USAMRIID  
Sent: Wed 8/23/2006 4:01 PM  
To: (b) (6)  
Cc: (b) (6)  
Subject: RE: Spore request

OK, How about 3 pm?

Bruce Ivins

(b) (6)

---

From: (b) (6)  
Sent: Wednesday, August 23, 2006 3:06 PM  
To: Ivins, Bruce E Dr USAMRIID  
Subject: RE: Spore request

Tomorrow maybe?

---

From: Ivins, Bruce E Dr USAMRIID  
Sent: Wednesday, August 23, 2006 3:03 PM  
To: (b) (6)  
Subject: RE: Spore request

Sure. When?

Bruce Ivins

(b) (6)

---

From: (b) (6)  
Sent: Wednesday, August 23, 2006 2:52 PM  
To: Ivins, Bruce E Dr USAMRIID; (b) (6)  
Subject: Spore request

Bruce,  
Could (b) (6) get 2 ml of 060403RIID7L (SA # 1749) at  $1 \times 10^9$  spores per ml?

(b) (6)

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Strains  
**Date:** Monday, July 31, 2006 5:06:03 PM

---

Below, in red, is the information, (b) (6)

(b) (6) there is no reference to MY Select Agent number in the transfer sheet (what I created the aliquot from), only the newly assigned number.

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Monday, July 31, 2006 4:04 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** FW: Strains

Thank you for the information on the phone message. However the info I need is to be able to say which Code PCR letter (A-G) went with which transfer and which Code for TIGR letter (A-G) as well.

Can you help with that?

Thank you,

(b) (6)

[REDACTED]

[REDACTED]

---

From: (b) (6)  
Sent: Monday, July 31, 2006 1:25 PM  
To: (b) (6)  
Subject: FW: Strains

---

From: Ivins, Bruce E Dr USAMRIID  
Sent: Monday, July 31, 2006 1:07 PM  
To: (b) (6)  
Cc: (b) (6)  
Subject: Strains

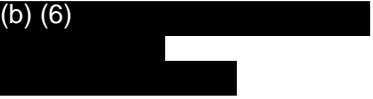
(b) (6)

It was (b) (6) idea to make all of the strains spooky and secret. I would have been happy telling you what everything was. They're all Ames spores

| Code for PCR | Code for TIGR |                   |                     |
|--------------|---------------|-------------------|---------------------|
| B            | B             | Select Agent 954  | 060216DPG1L - 7746  |
| G            | D             | Select Agent 1749 | 060403RIID7L - 7747 |
| C            | E             | 1 % phenol        |                     |
| F            | C             | Select Agent 3660 | 060503DPG2L - 7749  |
| E            | A             | Select Agent 516  | HHS Lot - 7748      |
| A            | G             | Select Agent 1749 | 060403RIID7L - 7747 |
| D            | F             | 1 % phenol        |                     |
| H            | H             | Irradiated 1749   | 060403RIID7L - 7747 |

Bruce Ivins

(b) (6)

A large black rectangular redaction covers the majority of the page's content. The text "(b) (6)" is visible in the top-left corner of this redacted area.

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6) [IID](#)  
**Subject:** RE: Vaccine project, next steps  
**Date:** Thursday, July 13, 2006 8:43:41 AM

---

I didn't add that - good point. There's nothing about our doing ELISAs. I should add some money for shipping the samples.

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Thursday, July 13, 2006 8:36 AM  
>To: Ivins, Bruce E Dr USAMRIID; (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
>Do the costs of supplies include syringes/needles for 124 injections, materials for 4 blood draws and for plating/culturing after challenge, spore production costs for delta-Ames-1? How much time will you need to prepare the spore suspension for challenge?

>Are they going to want ELISAs here or are they going to do them? (shipping costs)

> \_\_\_\_\_  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Wednesday, July 12, 2006 1:56 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

>(b) (6),  
> Could you please look over the proposed budget for the EMThrax and make comments, criticisms and suggestions? Thanks! << File: EMThrax proposed budget.xls >>

>Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps

>Bruce,

>Would you be interested in doing this study?

>Thanks,

>(b) (6)

>-----

>

>

>Any in << File: image001.gif >> << File: Animal Protocol for Novel Anthrax Vaccine.doc >> rest in collaborating with these guys? Please read below.

>

>(b) (6)

>

>

>From: (b) (6)

>Sent: Monday, July 03, 2006 12:58 PM

>To: (b) (6)

>Subject: FW: Vaccine project, next steps

>

>(b) (6)

>

>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

>

>(b) (6)

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Vaccine project, next steps  
**Date:** Monday, July 10, 2006 1:44:57 PM

---

I'm not going to get into trouble for this, am I?

Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Monday, July 10, 2006 12:58 PM  
>To: Ivins, Bruce E Dr USAMRIID  
>Cc: (b) (6)  
>Subject: RE: Vaccine project, next steps

>They will pay us!

>-----  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Monday, July 10, 2006 12:05 PM  
>To: (b) (6) IID  
>Cc: (b) (6)

>Subject: RE: Vaccine project, next steps

>I'm going to look into this for collaborating.

>Bruce Ivins

(b) (6)

> \_\_\_\_\_  
>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps

>Bruce,

>Would you be interested in doing this study?

>Thanks,

(b) (6)

>  
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>  
>(b) (6)

> \_\_\_\_\_

>  
>From: (b) (6)  
>Sent: Monday, July 03, 2006 12:58 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
>(b) (6)

>  
>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

>  
>(b) (6)

>  
> \_\_\_\_\_

>  
>From: (b) (6)  
>Sent: Friday, June 30, 2006 1:56 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: Vaccine project, next steps

>Good Morning,

>  
>EMThrax is prepared to move forward with in-vivo testing of a novel vaccine. Attached is a brief description of the work they would like to have performed at your facility.

>  
>The point of contact for EMThrax is (b) (6). They are in the process of moving into a new office/lab and will have a new physical address in the next week or so, but (b)(6) can be reached by email and phone as follows:

>  
>(b) (6)

>  
>Please let me know how we should proceed to move this project forward. I would be happy to arrange a call with EMThrax to discuss details of the work they would like to have done.

>  
>Regards,

>  
>(b) (6)

> \_\_\_\_\_

>  
>From: (b) (6) ]  
>Sent: Friday, April 21, 2006 7:31 AM  
>To: (b) (6)  
(b) (6)

>Subject: RE: Vaccine overview

>  
(b) (6)

>We certainly are capable of doing the work described below. Be happy to discuss the possibility further with the company, if they wish.

>  
>Regards,

>  
(b) (6)

>  
> \_\_\_\_\_  
>  
>From: (b) (6)  
>Sent: Thursday, April 20, 2006 4:40 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: Vaccine overview

>Thank you for discussing the possible project related to testing of a new anthrax vaccine. As discussed, below are a simplified overview of the technology and a general discussion of the testing they would like to have performed. If this is something that could be performed at your facility, I would like to set up a call with EMThrax to discuss the path forward.

>  
>Technology Overview

>The EMThrax vaccine is a spore based vaccine that targets anthrax BEFORE the infection begins, unlike the current vaccines that target the disease AFTER infection has begun. All of the components of the vaccine are found in natural abundance within the spore so there is no need to artificially produce any of the components of the vaccine. Furthermore, the EMThrax anthrax vaccine will be able to provide protection from multiple strains Bacillus anthracis (anthrax).

>  
>  
>  
>During an anthrax attack "fluffy" spores are released into the environment, which are then inhaled by people. The spores are picked up in the lungs by immune cells where they transform into vegetative cells. This process releases three toxins that ultimately results in death. All current technologies focus on combating one of these toxins known as Protective Antigen (PA). These vaccines only work AFTER infection has begun. EMThrax, LLC has developed a method that prevents the spores from releasing these toxins, thus preventing the infection at an earlier stage.

>  
>Potential Lab Testing

>EMThrax, LLC anticipates between 2-3 animal experiments that will involve the use of mice. The first level of analysis will only require (b) (2) space with select agent approval. Upon successful completion of this mouse model, then a series of animal experiments using guinea pigs will be employed. A guinea pig model will require the use of a (b) (2) facility and select agent approval. We anticipate the need for (b) (2) facilities within 6 months. The difference between the two models is that mice only require strains of anthrax that contain PXO2+, which is non-virulent to humans; whereas guinea pigs require both PXO1+ and PXO2+, which is virulent to humans. Upon successful completion of a guinea pig model, a rabbit model will be employed to demonstrate protection of our vaccine against inhalation

anthrax.

>

>If possible, I would like to set up a call next week with EMThrax to discuss the project in more detail. Please let me know a time that is convenient for you.

>

>

>Regards,

>

(b) (6)

> \_\_\_\_\_

>

>From: (b) (6) ]

>Sent: Thursday, April 20, 2006 1:19 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: RE: Anthrax vaccine

>

(b) (6)

>

>If you can give me an idea of what your product candidate is and level of maturity, it would help us to assess our level of interest in context of all the other anthrax testing that we already have on our plate. Feel free to contact me.

>

>Regards,

>

(b) (6)

>

>

> \_\_\_\_\_

>

>

>

>

From: [Ivins, Bruce E Dr USAMRIID](#)  
To: (b) (6)  
Cc: (b) (6)  
Subject: RE: Vaccine project, next steps  
Date: Monday, July 10, 2006 12:05:16 PM

---

I'm going to look into this for collaborating.

Bruce Ivins

(b) (6)  
(b) (6)

>  
>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps  
>  
>Bruce,  
>  
>Would you be interested in doing this study?  
>  
>Thanks,

>  
(b) (6)

>  
>-----

>  
>Any in << File: image001.gif >> << File: Animal Protocol for Novel Anthrax Vaccine.doc >> rest in collaborating with these guys? Please read below.

>  
(b) (6)

>  
>  
>From: (b) (6)  
>Sent: Monday, July 03, 2006 12:58 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
(b) (6)

>  
>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

>  
(b) (6)

>  
>  
>  
> \_\_\_\_\_

>  
>From: (b) (6) ]  
>Sent: Friday, June 30, 2006 1:56 PM  
>To: (b) (6)  
>Cc: (b) (6)  
>Subject: Vaccine project, next steps  
>Good Morning,

>  
>EMThrax is prepared to move forward with in-vivo testing of a novel vaccine. Attached is a brief description of the work they would like to have performed at your facility.

>  
>The point of contact for EMThrax is (b) (6). They are in the process of moving into a new office/lab and will have a new physical address in the next week or so, but (b)(6) can be reached by email and phone as follows:

>  
>(b) (6)  
>[Redacted]

>  
>Please let me know how we should proceed to move this project forward. I would be happy to arrange a call with EMThrax to discuss details of the work they would like to have done.

>  
>Regards,

>  
>(b) (6)  
>[Redacted]

>  
>From: (b) (6)  
>Sent: Friday, April 21, 2006 7:31 AM  
>To: (b) (6)  
>Cc: (b) (6)  
>[Redacted]  
>Subject: RE: Vaccine overview

>  
>(b) (6)  
>  
>We certainly are capable of doing the work described below. Be happy to discuss the possibility further with the company, if they wish.

>  
>Regards,

>  
>(b) (6)  
>[Redacted]

>  
>From: (b) (6)

>Sent: Thursday, April 20, 2006 4:40 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: Vaccine overview

>Thank you for discussing the possible project related to testing of a new anthrax vaccine. As discussed, below are a simplified overview of the technology and a general discussion of the testing they would like to have performed. If this is something that could be performed at your facility, I would like to set up a call with EMThrax to discuss the path forward.

>

>Technology Overview

>The EMThrax vaccine is a spore based vaccine that targets anthrax BEFORE the infection begins, unlike the current vaccines that target the disease AFTER infection has begun. All of the components of the vaccine are found in natural abundance within the spore so there is no need to artificially produce any of the components of the vaccine. Furthermore, the EMThrax anthrax vaccine will be able to provide protection from multiple strains Bacillus anthracis (anthrax).

>

>

>

>During an anthrax attack "fluffy" spores are released into the environment, which are then inhaled by people. The spores are picked up in the lungs by immune cells where they transform into vegetative cells. This process releases three toxins that ultimately results in death. All current technologies focus on combating one of these toxins known as Protective Antigen (PA). These vaccines only work AFTER infection has begun. EMThrax, LLC has developed a method that prevents the spores from releasing these toxins, thus preventing the infection at an earlier stage.

>

>Potential Lab Testing

>EMThrax, LLC anticipates between 2-3 animal experiments that will involve the use of mice. The first level of analysis will only require (b)(2) space with select agent approval. Upon successful completion of this mouse model, then a series of animal experiments using guinea pigs will be employed. A guinea pig model will require the use of a (b)(2) facility and select agent approval. We anticipate the need for (b)(2) facilities within 6 months. The difference between the two models is that mice only require strains of anthrax that contain PXO2+, which is non-virulent to humans; whereas guinea pigs require both PXO1+ and PXO2+, which is virulent to humans. Upon successful completion of a guinea pig model, a rabbit model will be employed to demonstrate protection of our vaccine against inhalation anthrax.

>

>If possible, I would like to set up a call next week with EMThrax to discuss the project in more detail. Please let me know a time that is convenient for you.

>

>

>Regards,

>

(b) (6)

[REDACTED]

>

>

>From: (b) (6) ]

>Sent: Thursday, April 20, 2006 1:19 PM

>To: (b) (6)

>Cc: (b) (6)

>Subject: RE: Anthrax vaccine

>

(b) (6)

>

> If you can give me an idea of what your product candidate is and level of maturity, it would help us to assess our level of interest in context of all the other anthrax testing that we already have on our plate. Feel free to contact me.

>

> Regards,

>

> (b) (6)

[Redacted signature block]

>

>

> \_\_\_\_\_

>

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: Vaccine project, next steps  
**Date:** Monday, July 10, 2006 12:04:34 PM

---

I'll check and see (b) (6) but it looks like we'd be able to work on it. Thanks.

Bruce Ivins

(b) (6)

>  
>-----  
>From: (b) (6)  
>Sent: Monday, July 10, 2006 10:19 AM  
>To: Ivins, Bruce E Dr USAMRIID  
>Subject: FW: Vaccine project, next steps  
>  
>Bruce,  
>  
>Would you be interested in doing this study?  
>  
>Thanks,

(b) (6)

>-----

>  
>  
>Any in << File: image001.gif >> << File: Animal Protocol for Novel Anthrax Vaccine.doc >> rest in collaborating with these guys? Please read below.

(b) (6)

>  
>-----  
>From: (b) (6)  
>Sent: Monday, July 03, 2006 12:58 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

(b) (6)

>Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

(b) (6)

>-----  
>From: (b) (6) ]  
>Sent: Friday, June 30, 2006 1:56 PM

>To: (b) (6)  
>Cc: (b) (6)  
>Subject: Vaccine project, next steps  
>Good Morning,

>  
>EMThrax is prepared to move forward with in-vivo testing of a novel vaccine. Attached is a brief description of the work they would like to have performed at your facility.

>  
>The point of contact for EMThrax is (b) (6). They are in the process of moving into a new office/lab and will have a new physical address in the next week or so, but (b) (6) can be reached by email and phone as follows:

>  
(b) (6)

>  
>Please let me know how we should proceed to move this project forward. I would be happy to arrange a call with EMThrax to discuss details of the work they would like to have done.

>  
>Regards,

>  
(b) (6)

>  
>From: (b) (6)  
>Sent: Friday, April 21, 2006 7:31 AM  
>To: (b) (6)  
>Cc: (b) (6)

>Subject: RE: Vaccine overview

>  
>(b) (6)

>  
>We certainly are capable of doing the work described below. Be happy to discuss the possibility further with the company, if they wish.

>  
>Regards,

>  
(b) (6)

>  
>From: (b) (6)  
>Sent: Thursday, April 20, 2006 4:40 PM  
>To: (b) (6)  
>Cc: (b) (6)

>Subject: Vaccine overview

>Thank you for discussing the possible project related to testing of a new anthrax vaccine. As discussed, below are a simplified overview of the technology and a general discussion of the testing they would like to have performed. If this is something that could be performed at your facility, I would like to set up a call with EMThrax to discuss the path forward.

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>The EMThrax vaccine is a spore based vaccine that targets anthrax BEFORE the infection begins, unlike the current vaccines that target the disease AFTER infection has begun. All of the components of the vaccine are found in natural abundance within the spore so there is no need to artificially produce any of the components of the vaccine. Furthermore, the EMThrax anthrax vaccine will be able to provide protection from multiple strains Bacillus anthracis (anthrax).

>

>

>

>During an anthrax attack "fluffy" spores are released into the environment, which are then inhaled by people. The spores are picked up in the lungs by immune cells where they transform into vegetative cells. This process releases three toxins that ultimately results in death. All current technologies focus on combating one of these toxins known as Protective Antigen (PA). These vaccines only work AFTER infection has begun. EMThrax, LLC has developed a method that prevents the spores from releasing these toxins, thus preventing the infection at an earlier stage.

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>EMThrax, LLC anticipates between 2-3 animal experiments that will involve the use of mice. The first level of analysis will only require (b)(2) space with select agent approval. Upon successful completion of this mouse model, then a series of animal experiments using guinea pigs will be employed. A guinea pig model will require the use of a (b)(2) facility and select agent approval. We anticipate the need for (b)(2) facilities within 6 months. The difference between the two models is that mice only require strains of anthrax that contain PXO2+, which is non-virulent to humans; whereas guinea pigs require both PXO1+ and PXO2+, which is virulent to humans. Upon successful completion of a guinea pig model, a rabbit model will be employed to demonstrate protection of our vaccine against inhalation anthrax.

>

>If possible, I would like to set up a call next week with EMThrax to discuss the project in more detail. Please let me know a time that is convenient for you.

>

>

>Regards,

>

(b) (6)

[Redacted signature block]

> \_\_\_\_\_

>

>From: (b) (6)

>Sent: Thursday, April 20, 2006 1:19 PM

>To: (b) (6)

[Redacted recipient list]

>Subject: RE: Anthrax vaccine

>

>(b)

>

>If you can give me an idea of what your product candidate is and level of maturity, it would help us to assess our level of interest in context of all the other anthrax testing that we already have on our

plate. Feel free to contact me.

>

>Regards,

>

(b) (6)

A large black rectangular redaction covers the signature and name of the sender. The text "(b) (6)" is visible at the top left of this redacted area.

>

>

> \_\_\_\_\_

>

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** RE: Vaccine project, next steps  
**Date:** Thursday, July 13, 2006 11:19:09 AM

---

Another good point. I'll add money for the animal room supplies.

Bruce Ivins

(b) (6)

>  
>-----  
>From: (b) (6) D  
>Sent: Thursday, July 13, 2006 8:50 AM  
>To: (b) (6) Ivins, Bruce E Dr USAMRIID  
>Subject: RE: Vaccine project, next steps

>  
>Don't forget the hot suite/animal room supplies. You might want to incorporate a couple of pieces of small (replacement) equipment.

>  
>-----  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Thursday, July 13, 2006 8:43 AM  
>To: (b) (6)  
>Subject: RE: Vaccine project, next steps

>  
>I didn't add that - good point. There's nothing about our doing ELISAs. I should add some money for shipping the samples.

>  
>Bruce Ivins

(b) (6)

>  
>  
>-----  
>From: (b) (6)  
>Sent: Thursday, July 13, 2006 8:36 AM  
>To: Ivins, Bruce E Dr USAMRIID; (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
>Do the costs of supplies include syringes/needles for 124 injections, materials for 4 blood draws and for plating/culturing after challenge, spore production costs for delta-Ames-1? How much time will you need to prepare the spore suspension for challenge?

>Are they going to want ELISAs here or are they going to do them? (shipping costs)

>  
>-----  
>From: Ivins, Bruce E Dr USAMRIID  
>Sent: Wednesday, July 12, 2006 1:56 PM  
>To: (b) (6)  
>Subject: FW: Vaccine project, next steps

>  
>(b) (6),

> Could you please look over the proposed budget for the EMThrax and make comments, criticisms and suggestions? Thanks! << File: EMThrax proposed budget.xls >>

>  
>  
>

> Bruce Ivins

(b) (6)

>

>

>

> From: (b) (6)

> Sent: Monday, July 10, 2006 10:19 AM

> To: Ivins, Bruce E Dr USAMRIID

> Subject: FW: Vaccine project, next steps

>

> Bruce,

>

> Would you be interested in doing this study?

>

> Thanks,

>

> (b) (6)

>

> -----

>

>

> Any in << File: image001.gif >> << File: Animal Protocol for Novel Anthrax Vaccine.doc >> rest in collaborating with these guys? Please read below.

>

> (b) (6)

>

>

> From: (b) (6)

> Sent: Monday, July 03, 2006 12:58 PM

> To: (b) (6)

> Subject: FW: Vaccine project, next steps

>

(b) (6)

>

> Any interest in Bact to collaborate with these guys? Please advise. We can set up a telecon to discuss further, if you like.

(b) (6)

>

>

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Your transfer had to be canceled  
**Date:** Thursday, July 06, 2006 1:16:50 PM

---

We can make the transfer to (b) (6) (b)(6) if he'll accept them.

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, July 06, 2006 1:03 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
**Subject:** Your transfer had to be canceled

Bruce,

I had to cancel your transfers to (b) (6) because he wasn't registered to work with anthracis in (b)(2). Get with him and find out if he would like the records transferred to another PI like (b) (6) or (b) and if they would accept the transfer for him until our registration is amended and they can transfer the records back to him.

The transfer to (b) (6) is good to go though, come by and sign it when you can.

(b)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Your transfer had to be canceled  
**Date:** Thursday, July 06, 2006 1:41:32 PM

---

Thanks, (b) (6)

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, July 06, 2006 1:30 PM  
**To:** Ivins, Bruce E Dr USAMRIID; (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Your transfer had to be canceled

That will be fine

(b) (6)

---

**From:** Ivins, Bruce E Dr USAMRIID  
**Sent:** Thursday, July 06, 2006 1:17 PM  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** RE: Your transfer had to be canceled

We can make the transfer to (b) (6) if he'll accept them.

Bruce Ivins

(b) (6)

---

**From:** (b) (6)  
**Sent:** Thursday, July 06, 2006 1:03 PM  
**To:** Ivins, Bruce E Dr USAMRIID  
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(b)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Cc:** (b) (6)  
**Subject:** Select Agent usage  
**Date:** Monday, July 31, 2006 5:20:42 PM

---

(b)

Don't forget to make appropriate entries with respect to select agent usage for the 8222G strain of B. anthracis:

27 JUL 06 - Inoculate SBA plate

28 JUL 06 - Inoculate 12 flasks of media, 250 ml per flask, 3 liters total

31 JUL 06 - harvest 3 liters of culture and concentrate to 100 ml (50 ml in each of 2 polycarbonate flasks)

31 JUL 06 - Inoculate 27 SBA plates with heat shocked material (0.1 ml per plate) from the 100 ml of spore suspension above - put into your incubator in (b) (2)

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Bcc:** (b) (6)  
**Subject:** Select Agents in (b) (2)  
**Date:** Wednesday, July 26, 2006 3:59:07 PM

---

All,

In the -70C hallway freezer in (b)(2) (MMCN F4713), on the upper shelf, are several items that don't belong to me, but need to be taken care of, since they're select agents. For getting rid of select agents, as far as (b)(6) and (b)(6) have directed:

This email serves to outline the sequence of events as they should occur when you wish to inactivate or destroy your BSAT stocks without depleting them during an experiment.

1. Either notify someone in the Biosurety group that you need a witness for a destruction, or obtain someone to witness the destruction.
2. Once you have a witness present in person, or viewing through a window or a security camera, perform the destruction.
3. After the destruction is completed, archive the record in AIMS as soon as possible. Do not archive the record before the destruction has taken place. During archiving, a comment window will open. Add a brief statement as to why the record was archived such as "Cleaning the freezer", "Duplicate record...see agent\_\_\_\_", "No longer working with this agent", etc, and how the agent was destroyed such as "autoclaved", "irradiated", "disinfected with (appropriate chemical)"
4. The Inventory Office or someone from the Biosurety Group will generate your destruction document and notify you or your PI to come and sign and pick up the document.
5. Destruction documents will be kept with the PIs inventory records for 5 years.

Somebody will either have to take charge of them and enter them into the AIMS, or destroy them properly. If they've already been entered into the AIMS, great. If not, since they do exist, have been around for several years, and are clearly select agents, they have to be appropriately dealt with. They can't be simply autoclaved or ignored.

Here is what we have:

- 1) 50-ml polypropylene tube with "Ames 2Hr" on it. There is about one ml in the tube.
- 2) Box I (b) (6)  
Sterne (not a select agent), M2, M14, M444, IA1130, 1A04 (about 10 freezer tubes each)
- 3) Box 11 (b) (6)  
FTD 1052 Delta Sterne (not a select agent) - ~ 15 freezer tubes  
FTD 1051 Delta Vollum - ~ 15 freezer tubes  
Texas 1050 - ~ 15 freezer tubes
- 4) (b) (6) England  
BA1079-83 - about 18 tubes each

The freezer is in need of defrosting or chipping away the ice around the door.

Thanks.

Bruce Ivins

(b) (6)

A large black rectangular redaction box covers the majority of the page content, starting below the text "(b) (6)" and extending across the width of the page.

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Spore request spreadsheet  
**Date:** Wednesday, August 23, 2006 3:33:37 PM  
**Attachments:** [REDACTED]

---

Hi, everybody,

I made up a spore request spreadsheet in Excel. I've included it here, along with the request for spores tomorrow from (b) (6). Whoever keeps the request can keep the overall sheet, and it'll help our lab keep up with who wants what. Comments?

Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Spore request spreadsheet  
**Date:** Wednesday, August 23, 2006 3:33:37 PM  
**Attachments:** [REDACTED]

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Bruce Ivins

(b) (6)

**From:** [Ivins, Bruce E. Dr USAMRIID](#)  
**To:** (b) (6)  
**Subject:** Templates  
**Date:** Tuesday, July 11, 2006 3:21:58 PM

---

(b) (6)

Bruce Ivins  
(b) (6)

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** Usage - 19 July 06  
**Date:** Thursday, July 20, 2006 11:47:03 AM

---

20 TSA plates - inoculated 19 JUL 06. Destroyed 20 JUL 06.

Bruce Ivins

(b) (6)

A large black rectangular redaction box covers the majority of the text in this block, obscuring the name and any other identifying information.

**From:** [Ivins, Bruce E Dr USAMRIID](#)  
**To:** [Ivins, Bruce E Dr USAMRIID](#)  
**Subject:** Usage - 19 July 06  
**Date:** Thursday, July 20, 2006 11:47:03 AM

---

20 TSA plates - inoculated 19 JUL 06. Destroyed 20 JUL 06.

Bruce Ivins

(b) (6)

A large black rectangular redaction box covers the signature area, obscuring the name and any handwritten notes or dates that might have been present.