

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Monday, June 04, 2007 7:24:03 AM

Classification: UNCLASSIFIED

Caveats: NONE

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Day 9								
A	1000	5	7					
B	300	2	4					
C	103	0	3					
D	27	0	1					
E	9.6	0	0					

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Monday, June 04, 2007 7:24:03 AM

Classification: UNCLASSIFIED

Caveats: NONE

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Day 9								
A	1000	5	7					
B	300	2	4					
C	103	0	3					
D	27	0	1					
E	9.6	0	0					

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse TTD challenge - SA 12484 (L&D spores from 3 OCT 07) 31 MAY 07 injection - Death data (UNCLASSIFIED)
Date: Monday, June 04, 2007 7:22:48 AM

Classification: UNCLASSIFIED

Caveats: NONE

mouse TTD challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D medium spores made on 3 OCT 06, gradient-purified in APR 07) - 10 mice per group

Group 1 - 1.05 X 10e5 spores in 0.2 ml - IP

Deaths in hours

1	17.5
2	17.5
3	18.5
4	19
5	19.5
6	21
7	21
8	22
9	22.5
10	23.5

Group 2 - 1.05 X 10e4 spores in 0.2 ml - IP

Deaths in hours

1	23
2	23
3	24
4	24.5
5	25
6	34
7	34
8	> 40
9	> 40
10	> 40

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse TTD challenge - SA 12484 (L&D spores from 3 OCT 07) 31 MAY 07 injection - Death data (UNCLASSIFIED)
Date: Monday, June 04, 2007 7:22:48 AM

Classification: UNCLASSIFIED

Caveats: NONE

mouse TTD challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D medium spores made on 3 OCT 06, gradient-purified in APR 07) - 10 mice per group

Group 1 - 1.05 X 10e5 spores in 0.2 ml - IP

Deaths in hours

1	17.5
2	17.5
3	18.5
4	19
5	19.5
6	21
7	21
8	22
9	22.5
10	23.5

Group 2 - 1.05 X 10e4 spores in 0.2 ml - IP

Deaths in hours

1	23
2	23
3	24
4	24.5
5	25
6	34
7	34
8	> 40
9	> 40
10	> 40

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#)
Subject: Ames spelling and vial/tube mixup - also math (UNCLASSIFIED)
Date: Friday, May 25, 2007 3:32:37 PM

Classification: UNCLASSIFIED

Caveats: NONE

(b) (6) was preparing an ExCel spreadsheet with data and misspelled "Ames" as "Aimes." (b) (6) was preparing dilution blanks and vaccine vials for mouse injections on 31 MAY 07, and (b) (6) used all tubes instead of using both tubes and vials, as called for in the procedure.

I asked (b) (6) today to figure out how to dilute a couple of spore preparations so that they would both have 10 ml at 1×10^9 per ml, and (b) (6) was unable to do it.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6) (b) (6)
Subject: [Ivins, Bruce E Dr USAMRIID](#)
Date: Data on 1.25X NSM broth + 1X or 2X Ca and Mn salts (UNCLASSIFIED)
Tuesday, June 05, 2007 1:43:05 PM
Attachments: [Redacted]

Classification: UNCLASSIFIED
Caveats: FOUO

Here is the information on our latest study.

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

Attachment Classification: UNCLASSIFIED
Attachment Caveats: NONE
Classification: UNCLASSIFIED
Caveats: FOUO

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6) (b) (6)
Subject: [Ivins, Bruce E Dr USAMRIID](#)
Data on 1.25X NSM broth + 1X or 2X Ca and Mn salts (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 1:43:05 PM
Attachments: [Redacted]

Classification: UNCLASSIFIED
Caveats: FOUO

Here is the information on our latest study.

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

Attachment Classification: UNCLASSIFIED
Attachment Caveats: NONE
Classification: UNCLASSIFIED
Caveats: FOUO

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6) (b) (6)
Subject: [Ivins, Bruce E Dr USAMRIID](#)
Data on 1.25X NSM broth + 1X or 2X Ca and Mn salts (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 1:43:05 PM
Attachments: [Redacted]

Classification: UNCLASSIFIED
Caveats: FOUO

Here is the information on our latest study.

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

Attachment Classification: UNCLASSIFIED
Attachment Caveats: NONE
Classification: UNCLASSIFIED
Caveats: FOUO

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#)
Subject: Entry and Exit time records (UNCLASSIFIED)
Date: Thursday, June 07, 2007 2:30:41 PM

Classification: UNCLASSIFIED

Caveats: NONE

I've been trying to determine who did what in our lab with respect to submitting B. anthracis cultures to (b) (6) for the (b) (6). I asked (b) (6) who then talked to (b) (6) who then requested from (b) (6) the (b)(2) entry and exit records for myself, (b) (6) and (b) (6) in the FEB 02 through April 02 timeframe. I hadn't heard anything, so I re-inquired today and was told by (b) (6) that the records are too far back to be accessed.

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#)
Subject: Entry and Exit time records (UNCLASSIFIED)
Date: Thursday, June 07, 2007 2:30:41 PM

Classification: UNCLASSIFIED

Caveats: NONE

I've been trying to determine who did what in our lab with respect to submitting B. anthracis cultures to (b) (6) for the (b) (6). I asked (b) (6) who then talked to (b) (6) who then requested from (b) (6) the (b)(2) entry and exit records for myself, (b) (6) and (b) (6) in the FEB 02 through April 02 timeframe. I hadn't heard anything, so I re-inquired today and was told by (b) (6) that the records are too far back to be accessed.

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: FW: TTD determinations - 19/20 APR 07 - SA# 12469 (NSM + added CaCl2) (UNCLASSIFIED)
Date: Friday, June 01, 2007 4:29:43 PM

Classification: UNCLASSIFIED

Caveats: NONE

*NOTICE: Message body content downgraded from previous markings UNCLASSIFIED//FOUO by IvinsBE

Here you are, (b) (6)

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: Ivins, Bruce E Dr USAMRIID
Sent: Saturday, April 21, 2007 10:54 AM
To: Ivins, Bruce E Dr USAMRIID
Cc: (b) (6) | (b) (6) | (b) (6)
Subject: RE: TTD determinations - 19/20 APR 07 - SA# 12469 (NSM + added CaCl2) (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: FOUO

Select Agent # 12469 - (NSM + added CaCl2)
Challenge on 19 APR 07

10 mice injected with 8.24 X 10e3 spores in 0.2 ml, IP

10 mice injected with 8.24 X 10e4 spores in 0.2 ml, IP

TTD - 8.24 X 10e3

1. 19.5 hr
2. 25.5 hr
3. 26 hr
- 4, 27.5 hr
- 5, 44 hr
- 6, 44 hr
7. 44 hr
8. 44 hr

- 9. >46 hr
- 10. >46 hr

TTD - 8.24 X 10e4

- 1. 18 hr
- 2. 20.5 hr
- 3. 24 hr
- 4. 24 hr
- 5. 40 hr
- 6. 40 hr
- 7. 40 hr
- 8. 40 hr
- 9. 40 hr
- 10. 40 hr

-bruce

Bruce Ivins

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

Classification: UNCLASSIFIED

Caveats: FOUO

Classification: UNCLASSIFIED

Caveats: FOUO

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: FW: 6R1D (UNCLASSIFIED)
Date: Friday, May 25, 2007 3:27:09 PM
Attachments: (b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

FYI, (b) (6)

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)

Sent: Friday, May 25, 2007 9:48 AM

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

Subject: 6R1D (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Below is the current status of 6R1D. There have been some recent orders place in ALORES that do not have document numbers assigned yet (the totals for them are reflected below in red) Attached is a print out of what has come out of the APC with document numbers assigned.

MORE

BUDGET SYSTEM FISCAL YEAR 7

DESCRIP	EOR	BUDGET	REAL TIME	COMT	OBLIGATED	AVAILABLE	% USED
SALARI	11	90,124.00	.00	.00	90,124.00	.0	
CONTRA	25	157,200.00	157,200.00	157,200.00	.00	100.0	
SUPPLI	26	29,835.78	21,573.70	.00	8,262.08	72.3	
TECH S	27	340,000.00	85,000.00	85,000.00	255,000.00	25.0	
EQUIPM	31	94,040.22	94,040.22	.00	.00	100.0	
6R1D	(b) (6)	BACILLUS ANTHR					
TOTALS		711,200.00	357,813.92	242,200.00	353,386.08	50.4	

DESCRIPTION	EOB	AVAILABLE	NO DOCUMENT # ASSIGNED
SALARIES	11	90,124.00	.00
CONTRACTS	25	.00	.00
SUPPLIES	26	8,262.08	18,588.70
SALARIES/BEN	27	255,000.00	.00
EQUIPMENT	31	.00	94,040.22

6R1D (b) (6) BACILLUS ANTHR			
TOTALS		353,386.08	112,628.92

PRESS 'ENTER' TO CONTINUE OR 'F1' TO EXIT

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: FW: Another instrument needed, my oversight (UNCLASSIFIED)
Date: Thursday, May 24, 2007 1:57:43 PM

Classification: UNCLASSIFIED
Caveats: NONE

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

From: (b) (6)
Sent: Thursday, May 24, 2007 1:04 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: Another instrument needed, my oversight (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dear (b) (6) and Bruce,
I overlooked an important component for the new module for MS analysis which will cost about \$22k, and the sales rep forgot to mention it also. I ask for authorization to move the funds and place the purchase tomorrow. Without this piece, we will be spotting MALDI samples by hand which is inaccurate, error prone, and time-consuming. This purchase would place me fairly close to the \$150k I originally guessed when first speaking with (b) (6) about the project.
Thank you,

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: (b) (6); (b) (6); (b) (6); (b) (6)
Subject: FW: Another instrument needed, my oversight (UNCLASSIFIED)
Date: Thursday, May 24, 2007 2:23:01 PM

Classification: UNCLASSIFIED

Caveats: NONE

(b) (6)

As I look at the \$150,000 pricetag for this, I'm compelled to ask:

- 1) Does this include supplies or salary or travel, etc., or will the latter require additional funds?
- 2) Have you already started ordering the equipment and material? At the above pricetag, we should go through the Division Chief, and we need to ask (b) (6) if they're willing to come up with this amount of money for proteomics. Will the \$150,000 worth of equipment and material be used exclusively in support of this project (rather than fund unrelated present and future projects)?
- 3) Should we budget this for FY 2008? (b) (6) this is where our current budget comes in.)

I think that (b) (6) (b) (6) you and I should meet on these issues. If the pricetag were \$15,000 instead of \$150,000, I don't think there'd be much problem, but (b) (6) and probably (b) (6) would want input. (b) (6) since there's overlap with work for you (and since information from the project is going to you and your crew), I want to keep you in the loop of information.

(b) (6) can you talk to (b) (6) or set up a time for a meeting on this?

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

From: (b) (6)
Sent: Thursday, May 24, 2007 1:04 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: Another instrument needed, my oversight (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Dear (b) (6) and Bruce,

I overlooked an important component for the new module for MS analysis which will cost about \$22k, and the sales rep forgot to mention it also. I ask for authorization to move the funds and place the purchase tomorrow. Without this piece, we will be spotting MALDI samples by hand which is inaccurate, error prone, and time-consuming. This purchase would place me fairly close to the \$150k I originally guessed when first speaking with (b) (6) about the project.

Thank you,

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: (b) (6)
Subject: FW: AP07022 rPA prep (UNCLASSIFIED)
Date: Thursday, May 24, 2007 9:02:59 AM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6) made up the enclosed document regarding our making of the vaccine. We'll make it on May 31 and bring it to (b) (6) on June 1.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6)
Subject: FW: Flow Chart (UNCLASSIFIED)
Date: Monday, May 21, 2007 10:20:25 AM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)
Sent: Monday, May 21, 2007 8:43 AM
To: (b) (6) Ivins, Bruce E Dr USAMRIID
Subject: Flow Chart (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

This is much easier to look at than a Gantt :)

I don't have estimated amounts for the mouse assay or sham sprays.

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6)
Subject: FW: Funds for FY08 (UNCLASSIFIED)
Date: Friday, June 08, 2007 2:00:41 PM

Classification: UNCLASSIFIED
Caveats: NONE

Are we applying for more (b) (6) funds, or shall I just quit?

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

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

From: (b) (6)
Sent: Friday, June 08, 2007 1:41 PM
To: (b) (6) (b) (6)
(b) (6)
Ivins, Bruce E
Dr USAMRIID; (b) (6) (b) (6)
(b) (6) (b) (6)
(b) (6)
Cc: (b) (6) (b) (6)
Subject: FW: Funds for FY08 (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Please send budget forms (or estimated budgets) for all non-DTRA funding to me and (b) (6) by COB June 13. We are starting budget rollups for FY08.
Thanks!

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: FW: pics (UNCLASSIFIED)
Date: Monday, May 28, 2007 11:48:13 AM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

Hi, (b) (6)

I'm trying to identify records of old cultures and spore preps. Could you please look at the following picture (you sent it to me in January, 2002) and tell me what prep this is? I don't have a record of an "Ivins" strain, and we (b) (6), myself) made lots of spore preps and cultures.

Anything you could find out and pass along on the origin or derivation of the material would be greatly appreciated. Thanks.
-bruce

> _____
> From: (b) (6)
> Sent: Thursday, January 10, 2002 3:15 PM
> To: Ivins, Bruce E Dr USAMRIID
> Subject: pics
>
>
>
> Classification: UNCLASSIFIED
> Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Subject: FW: SWABS IN (b)(2) (UNCLASSIFIED)
Date: Wednesday, June 06, 2007 10:03:13 AM

Classification: UNCLASSIFIED
Caveats: NONE

Just a reminder for all of us to be extra diligent about safety, cleaning, etc.

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Wednesday, June 06, 2007 8:30 AM
To: (b) (6); Ivins, Bruce E Dr USAMRIID; (b) (6)
(b) (6); (b) (6)
(b) (6); (b) (6)
(b) (6)
Cc: (b) (6)
Subject: SWABS IN (b)(2) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi (b)(2) Gang-

We have been doing really great with our environmental swabbing lately. However, this week one of the sinks in the hot side change rooms, came up positive. As you know the hot-side change rooms are considered Hot BUT clean.

Just to remind you:

NO GLOVES IN THE CHANGE ROOMS (unless you are cleaning and you are protecting your hands from the bleach)

WASH HANDS BEFORE LEAVING YOUR INDIVIDUAL LABS

Thanks for your immediate attention to this matter. I know this is a very isolated incident but the safety office gets very nervous when the Hot side change rooms turn up positive, as this is just one step closer to the shower.

THANKS!

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Subject: FW: SWABS IN (b)(2) (UNCLASSIFIED)
Date: Wednesday, June 06, 2007 10:03:13 AM

Classification: UNCLASSIFIED
Caveats: NONE

Just a reminder for all of us to be extra diligent about safety, cleaning, etc.

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Wednesday, June 06, 2007 8:30 AM
To: (b) (6); Ivins, Bruce E Dr USAMRIID; (b) (6)
(b) (6); (b) (6)
(b) (6); (b) (6)
(b) (6)
Cc: (b) (6)
Subject: SWABS IN (b)(2) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi (b)(2) Gang-

We have been doing really great with our environmental swabbing lately. However, this week one of the sinks in the hot side change rooms, came up positive. As you know the hot-side change rooms are considered Hot BUT clean.

Just to remind you:

NO GLOVES IN THE CHANGE ROOMS (unless you are cleaning and you are protecting your hands from the bleach)

WASH HANDS BEFORE LEAVING YOUR INDIVIDUAL LABS

Thanks for your immediate attention to this matter. I know this is a very isolated incident but the safety office gets very nervous when the Hot side change rooms turn up positive, as this is just one step closer to the shower.

THANKS!

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: FW: Training and use of your LSRII? (UNCLASSIFIED)
Date: Thursday, June 07, 2007 1:22:33 PM

Classification: UNCLASSIFIED
Caveats: NONE

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Thursday, June 07, 2007 11:48 AM
To: (b) (6); (b) (6)
Cc: (b) (6); Ivins, Bruce E Dr USAMRIID
Subject: RE: Training and use of your LSRII? (UNCLASSIFIED)

(b) (6)

I did not realize that this person has no experience on the flow. Please get some one with experience on flow to do this work. The LSR2 is not an easy machine to work with since it has multiple lasers and we are very attached to this machine. If this is one or two times type of use may be we can just do it for you.

(b) (6)

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

From: (b) (6)
Sent: Wednesday, June 06, 2007 10:53 AM
To: (b) (6); (b) (6)
Cc: (b) (6); Ivins, Bruce E Dr USAMRIID
Subject: Training and use of your LSRII? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dear (b) (6)

I would like my (b) (6), (b) (6), (b) (6), (b) (6) use the LSRII instrument in (b) (6) lab for analysis of gamma-irradiation killed spores as part of the spore production team research objectives. (b) (6) asked me to contact you about this. I have a published procedure used to correlate spore viability in *B. subtilis* with autofluorescence. (b) (6) LSR II is the only FACS instrument in the institute having a uv source laser for sample excitation, required for this intrinsic fluorescence test. None of 16 references I looked at concerning FACS of *B. anthracis* spore indicated extraordinary need for post-use cleaning (spores may be sticky?). However, we will dialyze the spore preparations into water before application to remove their 1% phenol content. (b) (6) will need instrument training as (b) (6) has not used a FACS or your instrument.

Please contact me at your convenience so we can plan experiments.

Sincerely,

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); (b) (6)
Subject: FW: Training and use of your LSRII? (UNCLASSIFIED)
Date: Friday, June 08, 2007 11:17:11 AM

Classification: UNCLASSIFIED
Caveats: NONE

FYI

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Friday, June 08, 2007 11:06 AM
To: (b) (6); (b) (6)
Cc: (b) (6); Ivins, Bruce E Dr USAMRIID; (b) (6)
(b) (6)
Subject: RE: Training and use of your LSRII? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6)

Your instrument; your decision, I understand. I will perform preliminary testing by different means and then get back to you if evidence suggests that your LSRII instrument may be helpful. At that time (later this summer), if you or (b) (6) are willing to do the actual experiments in collaboration, then that would be a good. Of course, the results may indicate a need for further use. Naturally, promising results will generate the desire for method optimization, collection of definitive results, reporting to (b) (6) for the Spore Analysis project, and co-authorship on a manuscript.

(b) (6)

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

From: (b) (6)
Sent: Thursday, June 07, 2007 11:48 AM
To: (b) (6); (b) (6)
Cc: (b) (6); Ivins, Bruce E Dr USAMRIID
Subject: RE: Training and use of your LSRII? (UNCLASSIFIED)

(b) (6)

I did not realize that this person has no experience on the flow. Please get some one with experience on flow to do this work. The LSR2 is not an easy machine to work with since it has multiple lasers and we are very attached to this machine. If this is one or two times type of use may be we can just do it for you.

(b) (6)

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

From: (b) (6)
Sent: Wednesday, June 06, 2007 10:53 AM
To: (b) (6); (b) (6)
Cc: (b) (6); Ivins, Bruce E Dr USAMRIID
Subject: Training and use of your LSRII? (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Dear (b) (6)

I would like my (b) (6) use the LSRII instrument in (b) (6) lab for analysis of gamma-irradiation killed spores as part of the spore production team research objectives. (b) (6) asked me to contact you about this. I have a published procedure used to correlate spore viability in *B. subtilis* with autofluorescence. (b) (6) LSR II is the only FACS instrument in the institute having a uv source laser for sample excitation, required for this intrinsic fluorescence test. None of 16 references I looked at concerning FACS of *B. anthracis* spore indicated extraordinary need for post-use cleaning (spores may be sticky?). However, we will dialyze the spore preparations into water by application to remove their 1% phenol content. (b) (6) will need instrument training as (b) (6) has not used a FACS or your instrument.

Please contact me at your convenience so we can plan experiments.

Sincerely,

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: [Ivins, Bruce E Dr USAMRIID](#)
Subject: Math calculations for spores (UNCLASSIFIED)
Date: Thursday, June 07, 2007 1:56:33 PM

Classification: UNCLASSIFIED

Caveats: NONE

- 1) (b) (6) has 16 monkeys that need to get 1,000 LD50 aerosol doses of Ames anthrax spores.
 - a) Each spray requires 10 ml of spores in a tube and one or two extra tubes in case a problem crops up (such as a dropped tube)
 - b) Since there are 16 monkeys, we'll make 17 tubes, for a total of 170 ml of spore suspension, 10 ml per tube.
- 2) The spores we'll be using are Select Agent # 516. The concentration of the stock solution is 3.4×10^{10} per ml.
- 3) (b) (6) says that we need to provide (b) (6) with tubes of spores at 4×10^9 per ml to give a dose of 1,000 aerosol LD50s.
- 4) Calculations: Divide the concentration of spores we have by the concentration of spores we want:
 3.4×10^{10} per ml divided by 4.0×10^9 per ml = 8.5 This number is the ratio of the final volume of the spore suspension to the volume of stock spores that need to be added.

We want 170 ml total, and this volume represents 8.5 X the amount of stock spores we need to add, so 170 divided by 8.5 = 20. Thus we need to add 20 ml of spores. Subtract 20 ml from 170 ml to get 150 ml, which is the volume of WFI that needs to be added.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: [Ivins, Bruce E Dr USAMRIID](#)
Subject: Math calculations for spores (UNCLASSIFIED)
Date: Thursday, June 07, 2007 1:56:33 PM

Classification: UNCLASSIFIED

Caveats: NONE

- 1) (b) (6) has 16 monkeys that need to get 1,000 LD50 aerosol doses of Ames anthrax spores.
 - a) Each spray requires 10 ml of spores in a tube and one or two extra tubes in case a problem crops up (such as a dropped tube)
 - b) Since there are 16 monkeys, we'll make 17 tubes, for a total of 170 ml of spore suspension, 10 ml per tube.
- 2) The spores we'll be using are Select Agent # 516. The concentration of the stock solution is 3.4×10^{10} per ml.
- 3) (b) (6) says that we need to provide (b) (6) with tubes of spores at 4×10^9 per ml to give a dose of 1,000 aerosol LD50s.
- 4) Calculations: Divide the concentration of spores we have by the concentration of spores we want:
 3.4×10^{10} per ml divided by 4.0×10^9 per ml = 8.5 This number is the ratio of the final volume of the spore suspension to the volume of stock spores that need to be added.

We want 170 ml total, and this volume represents 8.5 X the amount of stock spores we need to add, so 170 divided by 8.5 = 20. Thus we need to add 20 ml of spores. Subtract 20 ml from 170 ml to get 150 ml, which is the volume of WFI that needs to be added.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) (UNCLASSIFIED)
Date: Friday, June 01, 2007 9:35:53 AM

Classification: UNCLASSIFIED

Caveats: NONE

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Desired dose	Actual dose
A	1000	~1000
B	300	~300
C	100	103
D	30	27
E	10	9.6

Plate counts (0.2 ml per plate):

C 100, 101, 101, 104, 109
median = 101 mean = 103

D 25, 25, 27, 29, 29
median = 27 mean = 27

E 6, 8, 9, 12, 13
median = 9 mean = 9.6

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) (UNCLASSIFIED)
Date: Friday, June 01, 2007 9:35:53 AM

Classification: UNCLASSIFIED

Caveats: NONE

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Desired dose	Actual dose
A	1000	~1000
B	300	~300
C	100	103
D	30	27
E	10	9.6

Plate counts (0.2 ml per plate):

C 100, 101, 101, 104, 109
median = 101 mean = 103

D 25, 25, 27, 29, 29
median = 27 mean = 27

E 6, 8, 9, 12, 13
median = 9 mean = 9.6

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse TTD challenge - SA 12484 (L&D spores from 3 OCT 07) 31 MAY 07 injection (UNCLASSIFIED)
Date: Friday, June 01, 2007 9:55:50 AM

Classification: UNCLASSIFIED

Caveats: NONE

We're going to do a mouse TTD challenge on Thursday, 31 MAY 07. The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D medium spores made on 3 OCT 06, gradient-purified in APR 07) - 10 mice per group

Group 1 - 1 X 10⁵ spores in 0.2 ml - IP - injected 1500

Group 2 - 1 X 10⁴ spores in 0.2 ml - IP - injected 1100

Actual counts injected = 1.05 X 10⁵ and 1.05 X 10⁴

Plate counts = 23, 25, 26, 26, 31

median = 26 mean = 26.2

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: Mouse TTD challenge - SA 12484 (L&D spores from 3 OCT 07) 31 MAY 07 injection (UNCLASSIFIED)
Date: Friday, June 01, 2007 9:55:50 AM

Classification: UNCLASSIFIED

Caveats: NONE

We're going to do a mouse TTD challenge on Thursday, 31 MAY 07. The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D medium spores made on 3 OCT 06, gradient-purified in APR 07) - 10 mice per group

Group 1 - 1 X 10⁵ spores in 0.2 ml - IP - injected 1500

Group 2 - 1 X 10⁴ spores in 0.2 ml - IP - injected 1100

Actual counts injected = 1.05 X 10⁵ and 1.05 X 10⁴

Plate counts = 23, 25, 26, 26, 31

median = 26 mean = 26.2

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: (b) (6)
Subject: (b) numbers for spore batches (UNCLASSIFIED)
Date: Monday, May 21, 2007 4:39:21 PM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6) do you want to give (b) (6) numbers to the following enclosed runs? Some of them were done on the same day, so the lot numbers would be the same.

-bruce

Bruce Ivins

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

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: Patent status (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 3:09:07 PM

Classification: UNCLASSIFIED
Caveats: NONE

Hi, (b) (6)

Could you please tell me the status of the patent application, "METHOD OF PREVENTING INFECTIONS FROM BIOTERRORISM AGENTS WITH IMMUNOSTIMULATORY CpG OLIGONUCLEOTIDES," that was submitted a few years ago? Was a patent granted?

I've talked to (b) (6) (b) (6) from (b) (6) who's most appreciative of being able to collaborate with you in (b) (6) vaccine work.

I hope you're having a good spring!

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: Preparations of spores (UNCLASSIFIED)
Date: Friday, May 25, 2007 9:31:24 AM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: RE: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Thursday, June 07, 2007 2:49:07 PM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to (b) (6) for doing the PM checks. - bruce

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
A	1000	5	7	9	9	9	9	9
B	300	2	4	5	5	5	5	5
C	103	0	3	3	4	4	4	4
D	27	0	1	1	1	1	1	1
E	9.6	0	0	0	0	0	0	0

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: RE: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 3:26:30 PM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to (b) (6) for doing the Day 5 PM checks. - bruce

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Day 9								
A	1000	5	7	9	9			
B	300	2	4	5	5			
C	103	0	3	3	4			
D	27	0	1	1	1			
E	9.6	0	0	0	0			

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: RE: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 3:26:30 PM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to (b) (6) for doing the Day 5 PM checks. - bruce

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
A	1000	5	7	9	9			
B	300	2	4	5	5			
C	103	0	3	3	4			
D	27	0	1	1	1			
E	9.6	0	0	0	0			

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: RE: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 8:44:49 AM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to (b) (6) for doing the Day 4 PM checks. - bruce

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Day 9								
A	1000	5	7	9				
B	300	2	4	5				
C	103	0	3	3				
D	27	0	1	1				
E	9.6	0	0	0				

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: RE: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 8:44:49 AM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to (b) (6) for doing the Day 4 PM checks. - bruce

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Day 9								
A	1000	5	7	9				
B	300	2	4	5				
C	103	0	3	3				
D	27	0	1	1				
E	9.6	0	0	0				

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#); (b) (6)
Cc: (b) (6); (b) (6)
Subject: RE: Mouse LD50 challenge on 31 MAY 07 - SA 12484 (L&D spores from 3 OCT 07) - Death data (UNCLASSIFIED)
Date: Thursday, June 07, 2007 2:49:07 PM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to (b) (6) for doing the PM checks. - bruce

We're going to do a mouse LD50 challenge on Thursday, 31 MAY 07 . The injections will be intraperitoneal, 0.2 ml.

SA# 12484 (L&D spores from 3 OCT 07) - 10 mice per group

Group	Dose	Cumulative Deaths						
		Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
A	1000	5	7	9	9	9	9	9
B	300	2	4	5	5	5	5	5
C	103	0	3	3	4	4	4	4
D	27	0	1	1	1	1	1	1
E	9.6	0	0	0	0	0	0	0

Day 2 = Saturday, 2 June

Day 3 = Sunday, 3 June

Day 4 = Monday, 4 June

Day 5 = Tuesday, 5 June

Day 6, Wednesday, 6 June

Day 7, Thursday, 7 June

Day 8, Friday, 8 June

Day 9, Saturday, 9 June

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: AIMS Missing data (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 8:00:24 AM

Classification: UNCLASSIFIED
Caveats: NONE

Hi, (b) (6) I changed the building to (b)(2). I'll add it.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)
Sent: Monday, June 04, 2007 3:59 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: AIMS Missing data (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dr. Ivins,

I appreciate your assistance in making the AIMS 2.0 transition smooth. One of the changes that occurred in AIMS 2.0 is the addition of require fields (building, room, & freezer). We have a few records where data is missing for these required fields, I have identified these records.

I have highlighted the missing data for you in the attached spread sheet. This data needs to be added to AIMS, the data can be entered by the PI or their representative. I would like to have this completed by 18 Jun 2007. This ensures that we are compliant with the CDC inspection. I appreciate your cooperation.

Please let me know if you have questions.

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: AIMS Missing data (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 8:24:56 AM

Classification: UNCLASSIFIED

Caveats: NONE

Anytime, (b) (6)

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)
Sent: Tuesday, June 05, 2007 8:18 AM
To: Ivins, Bruce E Dr USAMRIID
Subject: RE: AIMS Missing data (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Thanks.

(b) (6)

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

From: Ivins, Bruce E Dr USAMRIID
Sent: Tuesday, June 05, 2007 8:00 AM
To: (b) (6)
Subject: RE: AIMS Missing data (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6) I changed the building to (b)(2) I'll add it.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)

Sent: Monday, June 04, 2007 3:59 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: AIMS Missing data (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dr. Ivins,

I appreciate your assistance in making the AIMS 2.0 transition smooth. One of the changes that occurred in AIMS 2.0 is the addition of require fields (building, room, & freezer). We have a few records where data is missing for these required fields, I have identified these records.

I have highlighted the missing data for you in the attached spread sheet. This data needs to be added to AIMS, the data can be entered by the PI or their representative. I would like to have this completed by 18 Jun 2007. This ensures that we are compliant with the CDC inspection. I appreciate your cooperation.

Please let me know if you have questions.

(b) (6)


Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#)
Subject: RE: Ames spelling and vial/tube mixup - MORE (UNCLASSIFIED)
Date: Wednesday, May 30, 2007 12:05:56 PM

Classification: UNCLASSIFIED
Caveats: NONE

When (b) (6) repeated the dilutions, (b) (6) added 9.9 instead of 19.9 ml to one of the dilution tubes, even though (b) (6) had marked it 19.9 ml.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: Ivins, Bruce E Dr USAMRIID
Sent: Friday, May 25, 2007 3:33 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: Ames spelling and vial/tube mixup - also math (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6) was preparing an ExCel spreadsheet with data and misspelled "Ames" as "Aimes." (b) (6) was preparing dilution blanks and vaccine vials for mouse injections on 31 MAY 07, and (b) (6) used all tubes instead of using both tubes and vials, as called for in the procedure.

I asked (b) (6) today to figure out how to dilute a couple of spore preparations so that they would both have 10 ml at 1 X 10e9 per ml, and (b) (6) was unable to do it.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: [Ivins, Bruce E Dr USAMRIID](#)
Subject: RE: Ames spelling and vial/tube mixup - MORE (UNCLASSIFIED)
Date: Wednesday, May 30, 2007 12:05:56 PM

Classification: UNCLASSIFIED
Caveats: NONE

When (b) (6) repeated the dilutions, (b) (6) added 9.9 instead of 19.9 ml to one of the dilution tubes, even though (b) (6) had marked it 19.9 ml.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: Ivins, Bruce E Dr USAMRIID
Sent: Friday, May 25, 2007 3:33 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: Ames spelling and vial/tube mixup - also math (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6) was preparing an ExCel spreadsheet with data and misspelled "Ames" as "Aimes." (b) (6) was preparing dilution blanks and vaccine vials for mouse injections on 31 MAY 07, and (b) (6) used all tubes instead of using both tubes and vials, as called for in the procedure.

I asked (b) (6) today to figure out how to dilute a couple of spore preparations so that they would both have 10 ml at 1 X 10e9 per ml, and (b) (6) was unable to do it.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: (b) (6)
Subject: RE: Another instrument needed, my oversight (UNCLASSIFIED)
Date: Friday, May 25, 2007 8:34:26 AM

Classification: UNCLASSIFIED

Caveats: NONE

This should probably still be run by (b) (6) and (b) (6)

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)
Sent: Friday, May 25, 2007 8:25 AM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Cc: (b) (6); (b) (6); (b) (6)
Subject: RE: Another instrument needed, my oversight (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi Bruce,

The cost of the instrumentation caught me off guard as well but remember (b) (6) expressed a very strong interest in proteomic work at our semi-annual meeting, asked us to obtain in-house analyses in that area for this project, and it (proteomics) is listed as one of the analyses in our SOW so we are not violating our IAA. Having said that, I did forward a copy of our project plan (it was that one sheet flow sheet we all reviewed last week) to (b) (6) after our meeting last week. (b) (6) has a monthly conference call with (b) (6) for all RIID projects that I believe is coming up in the next week. (b) (6) just sent me the (b) (6) progress template that I have attached for it. We were working on the revised budget last week in our meeting (Bruce and (b) (6) including the animal work so we can include it in the monthly meeting. We could also ask if they want to have a meeting on the revised work plan during the conference call if you would like.

(b) (6) work will likely help cover the short fall that I fear we are going to see from (b) (6) i.e. they are still not up and running. Note, the attached MIPR were they returned MORE money they couldn't use from FY07.

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

From: (b) (6)
Sent: Thursday, May 24, 2007 2:50 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6) (b) (6)
Cc: (b) (6) (b) (6)
Subject: RE: Another instrument needed, my oversight (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

All,
I provide the following in answer to Bruce's questions.

1. equipment and supplies only, salary covered already
2. equipment orders are in with exception of the last item mentioned (item # 10 below). These improved capabilities can, and will as needed, support other work requiring proteomics and biophysical analysis of biomolecules, as has always been the case for my lab.
3. 2008 requirements will be very low, <\$10k (assuming my salaries are paid for again)

During initial discussions with (b) (6) I stated that I could not accomplish this work without significant instrument upgrades for increased capabilities and high throughput processing due to only one technician.

Here is the breakdown of what has been ordered and what is waiting:

1. CEM Discovery Proteomics microwave rapid protein digester: \$17,037 (ordered)
2. Eclipse 2 upgrade of my existing asymmetric field flow fractionator with extended service warranty : \$32,800 (ordered)
3. MALDI PDF attachment for my LC/MS trap for HT analysis: \$61,240 (ordered)
4. Protein chip supplies for Ciphergen: \$2985 (ordered)
5. membrane filters: \$451 (ordered)
6. chemical supplies: \$655 (ordered)
7. sequencing grade trypsin: \$202 (ordered)
8. chromatography and MS buffers: \$429 (ordered)
9. usable MS replacement parts and supplies (spore material causes high wear on MS): \$6,000 (to be ordered)
10. Fraction collector with MALDI spotter: \$22,000 (to be ordered)
11. mass tagging reagents for differential proteomics: \$3,000 (to be ordered)

With items 9-11 above, the total order breakdown would be as follows:

\$133,077 equipment

\$13,722 supplies

From: Ivins, Bruce E Dr USAMRIID
Sent: Thursday, May 24, 2007 2:23 PM
To: (b) (6)
Cc: (b) (6) (b) (6) (b) (6)
(b) (6)
Subject: FW: Another instrument needed, my oversight (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

(b) (6)

As I look at the \$150,000 pricetag for this, I'm compelled to ask:

- 1) Does this include supplies or salary or travel, etc., or will the latter require additional funds?
- 2) Have you already started ordering the equipment and material? At the above pricetag, we should go through the Division Chief, and we need to ask (b) (6) if they're willing to come up with this amount of money for proteomics. Will the \$150,000 worth of equipment and material be used exclusively in support of this project (rather than fund unrelated present and future projects)?
- 3) Should we budget this for FY 2008? (b) (6) this is where our current budget comes in.)

I think that (b) (6) (b) (6) you and I should meet on these issues. If the pricetag were \$15,000 instead of \$150,000, I don't think there'd be much problem, but (b) (6) and probably (b) (6) would want input. (b) (6) since there's overlap with work for you (and since information from the project is going to you and your crew), I want to keep you in the loop of information.

(b) (6) can you talk to (b) (6) or set up a time for a meeting on this?

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

From: (b) (6)
Sent: Thursday, May 24, 2007 1:04 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: Another instrument needed, my oversight (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dear (b) (6) and Bruce,
I overlooked an important component for the new module for MS analysis which will cost about \$22k, and the sales rep forgot to mention it also. I ask for authorization to move the funds and place the purchase tomorrow. Without this piece, we will be spotting MALDI samples by hand which is inaccurate, error prone, and time-consuming. This purchase would place me fairly close to the \$150k I originally guessed when first speaking with (b) (6) about the project.

Thank you,

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: Bad Plane Day (UNCLASSIFIED)
Date: Monday, June 04, 2007 7:17:56 AM

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6)

I waited until 10 pm and had to leave to catch the Metro, which doesn't run all night. I have a spore harvest today. Maybe we can talk by phone. I could call your hotel number if there's a convenient time to call this week.

I got home about midnight. Ugh! I hope you at least got something to eat!

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)
Sent: Monday, June 04, 2007 12:09 AM
To: Ivins, Bruce E Dr USAMRIID
Subject: Bad Plane Day

Bruce,

Sorry that I missed you yesterday. As soon as I got in I was looking for you and the lady at the hotel said that you left less than a minute ago and I went looking for you, but I just missed you. At any rate I am not sure what the rest of your week looks like, but I would still be interested in chatting. So, if you are available, just let me know and I will see if I can make it up your way. I assuming that you took the train, so I could meet you some where up your way, if you are free. I will give you a call as soon as get a free chance tomorrow or you can reply here.

Thanx,

(b) (6)

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

Subject: RE: Letter of Support (UNCLASSIFIED)
From: "Ivins, Bruce E Dr USAMRIID" <bruce.ivins@us.army.mil>
Date: Thu, May 24, 2007 4:23 pm
To: (b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6)

I won't be at the conference, but if you tell me where you'll be staying and when you're getting in, then maybe we can set something up.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)

Sent: Thursday, May 24, 2007 4:14 PM

To: Ivins, Bruce E Dr USAMRIID

Subject: RE: Letter of Support (UNCLASSIFIED)

Bruce,

Thanx for the kind words. I would be more than happy to chat with you at the conference whenever you have some free time. My schedule is wide open, so when ever is fine by me. Looking forward to the trip.

Take Care,

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

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

Subject: RE: Letter of Support (UNCLASSIFIED)

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

Date: Thu, May 17, 2007 10:53 am

To: (b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

*NOTICE: Message body content downgraded from previous markings UNCLASSIFIED//FOUO by IvinsBE

Good to talk to you, (b) (6) Please give my regards to your (b) (6) and may (b) (6) grow strong and healthy and be a blessing to both of you!

-bruce

From: (b) (6)

Sent: Monday, April 30, 2007 10:02 PM

To: Ivins, Bruce E Dr USAMRIID

Subject: RE: Letter of Support (UNCLASSIFIED)

Bruce,

Glad to see that you are doing well. Things here are very busy, so I am glad to know that people still work hard these days. (b) (6) has been excellent towards us, and I believe that we owe you a bit of thanx for that one. (b) (6) has sent us 4 mg of CpG's, which will be plenty for our experiments.

In addition to (b) (6) help, we also are working with another company out of the RTP, (b) (6) which uses alpha-2-macroglobulin as a delivery mechanism/adjuvant. They have several studies that highlight the advantages of their technology, including combining with CpG's. Some quick highlights: 1) Due to the cage-like structure their system prevents protease attacks, 2) Allows antigens to be stored at room temperature for long periods of time (42 C for 8 weeks without degradation), 3) When alpha-2 macroglobins are combined with CpG's the amount of CpG's needed to provide the same level of protection was reduced by 10x fold, 4) Alpha-2-M allows for humoral immunity response. Thus, we are looking forward to the next animal model.

A little advise please!!! In the next set of experiments we are planning on the following experiments. We plan on testing 6 groups with 8 animals per group. the groups will be:

- A) EMThrax vaccine
- B) EMThrax vaccine + CpG's
- C) EMThrax vaccine + Alpha-2-M
- D) EMThrax vaccine + CpG's + Alpha-2-M
- E) AVA vaccine
- F) Negative Control

The question that we have for you is this: Do we complete this study in mice or in guinea pigs??? We have IUCAC approval to do either or, but the price difference is a factor. Is USAMRIID interested in another mouse model or would a guinea pig model be better??? To date we have only completed one mouse model in which we compared our vaccine versus the AVA and found that we both provided 100 % protection at an 100 x ED50 challenge. We also completed an agglutination assay in which we found that our vaccine had twice the number of antibodies produced as compared to the AVA against the outside surface of Anthrax spores.

For virulence studies, mice are good, with an IP LD50 of virulent strains of about 50 - 500. For vaccine studies, mice are difficult to protect with AVA (and virulent strains), whereas guinea pigs are partially protected. Anti-PA ELISA titers have been shown to correlate with protection in rabbits, and anti-PA serum from rabbits has been demonstrated to give some protection to mice against challenge. Our laboratory is currently rather limited in personnel and project time, so if you are interested in trying your vaccine against a virulent spore challenge, I'd suggest contacting (b) (6) who's currently heading major research in anthrax vaccine development.

By 100 ED50, do you mean 100 LD50?

When you get to a stage when you are ready to go to a virulent spore challenge, it could be done either here or at a contract lab that does work with virulent B. anthracis (such as (b) (6) or some other places). I would suggest an IM spore challenge in guinea pigs of about 10,000 spores, with the final immunization being 4-6 weeks prior to challenge. I would measure total survival as well as time to death (to see if any of the vaccines prolonged survival, even though the animals may eventually die). You could also do an initial challenge in mice with virulent spores - about 10 to 100 LD50 would be good to shoot for.

We plan on beginning the next set of experiments around June 18th. In the mean time we are conducting another animal experiment to test our technology with a second bug, which is Campylobacter jejuni. We are conducting both an s.c. and inter-nasal experiments. Thus, it will be interesting to see if our technology will work in many systems.

Also, I am planning to attending the 5th Annual Biodefense Conference for Vaccines in DC on June 4-6. If you are attending, then I would love to touch base with you if you have time.

Sounds good! We could have lunch or dinner together and talk things over.

We also have found a way to kill Anthrax spores using a mixture of Colloidal silver and peroxide. We have to do some more studies, but we thought that you might be interested in that technology. We are still working out the details, but it looks promising. Of course, there is already another company that has patented the idea, but at least we have found a good use for it and we can get a nice publication out of the concept.

Other than that, (b) (6) is doing very well. We could not have asked for a better baby. Now all we need to do is make a little money, so that we can give (b) (6) some brothers or sisters. We have attached some pictures of (b) (6) to this e-mail.

Again, thank you for all of your help.

Take Care,

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

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

Subject: RE: Letter of Support (UNCLASSIFIED)

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

Date: Wed, April 18, 2007 10:58 am

To: (b) (6)

Classification: UNCLASSIFIED

Caveats: FOUO

Thanks, (b) (6) and (b) (6) It's really busy here. I have some news for you with respect to the MPL+TDM+CWS adjuvant that Ribic/Corixa used to make. It's now being offered by (b) (6)

(b) (6)

It's quite potent, and even though it won't be used in humans, it allows researchers to test their vaccine candidates with a very powerful adjuvant that basically will tell them if their antigens (and other components) are protective and will engender a good immune response. If the vaccine doesn't work with a strong adjuvant, then they know they have to go back to the drawing board with their vaccine.

(b) (6) is a very good person to work with, and the data that was generated between our two laboratories (with respect to anthrax vaccination) was very promising.

Good luck in all of your work, and I hope The Little One is doing well!!

-bruce

Bruce Ivins

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

From: (b) (6)
Sent: Thursday, March 29, 2007 11:54 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: Letter of Support

Bruce,

Hope things are going well for you. (b) (6) and I are keeping busy trying to move things along. Thank you for introducing us to (b) (6). (b) (6) is a very good (b) (6) and (b) (6) has agreed to help us with our vaccine by providing us with some CpG Oligio's to use. This will be very helpful in our studies.

We just got back our comments today for the grant from (b) (6) SBIR program that we submitted back in December. We got 3 reviewers, which means that 1 person said yes and the 2nd said no. Unfortunately, the third person said no. Thus, we feel strongly that we will get it next time around, especially since we did not have any of the new animal data in the grant. So, we would like to include a new letter of support from you, if possible, since the reviewers did not like the wording of the original letter. I have attached a new letter of support and if you can sign it and send it back to us on a letterhead, then great!!! If not, then no worries. The grant is not due until next Thursday, so hopefully this will be enough time to get a letter.

(b) (6) and I are planning on starting the next animal model in a few weeks and we will have two new adjuvants to use. The CpG Oligio's from (b) (6) and also some alpha2-Macroglobulin (a2M), from a small company called (b) (6) out of (b) (6). Below is a quick paragraph about their technology that I thought you might find interesting regarding long-term storage issues of vaccines.

(b) (6) is based on a natural protein, alpha2-Macroglobulin (a2M), which contains two cage-like structures. We encapsulate immunogens into the two cage-like structures using a relatively simple process. The number of antigens that can be encapsulated into each molecule of a2M varies, depending on the physical properties of the immunogen: we've ranged from an average of 0.5:1 (for streptokinase) to as high as 8:1 (I can't recall which immunogen this was). Once the immunogen is encapsulated, it is protected from protease attack, etc. These complexes are also very stable. In the attached paper we demonstrated that HBsAg - a2M complexes in solution could be heated at 42C for 8 weeks (longest time tested) without coming apart or could be lyophilized and left at RT for the same time with no effect. Thus we can eliminate or greatly reduce the need for refrigeration of vaccines.

Thanx Again,

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

(b) (6)

Classification: UNCLASSIFIED
Caveats: FOUO

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); (b) (6); (b) (6)
Cc: [Ivins, Bruce E Dr USAMRIID](#); (b) (6); (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 2:53:33 PM

Classification: UNCLASSIFIED
Caveats: NONE

I would think that two exactly genetically identical strains, prepared exactly the same way, from the same source, would probably be indistinguishable as far as virulence. We do know that broth spores are cleaner and more virulent than sheep blood agar spores, and we know that Ames spores are more virulent than Vollum 1B spores. Does proteomics distinguish quantitative differences, qualitative differences or both?

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 2:43 PM
To: (b) (6); Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

I'm not sure that we would observe a change/difference in virulence by altering just one variable at a time and it would take quite some time to go through all the possible variables to examine each and its effect on virulence. Just think of the number of variables that would have to be changed/examined one at a time! What we do know is that there are differences between strains (Ames and Vollum 1B) and maybe between preparations (flask and fermentor). It might be useful if we could demonstrate what similarities/differences exist between two preparations that are different/same culturally but similar/different in virulence. Is it known that two genetically identical strains prepared identically differ in virulence??

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 2:03 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6); (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks Bruce. I was trying to puzzle out how we would get varying biological activities from identical preps?

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

From: Ivins, Bruce E Dr USAMRIID
Sent: Tuesday, May 29, 2007 2:00 PM
To: (b) (6); (b) (6); (b) (6)

Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

I think that if you get exactly the same strain, prepared from the same seed stock, grown, harvested and purified the same way - you won't see any measurable difference in virulence. I'm not sure what you mean by heterotrophic cfu numbers, and I presume you mean Petroff-Hausser counts.

Some of the (b) (6) preps differ from each other due to the differences in seed stock that were used for inoculation.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)

Sent: Tuesday, May 29, 2007 10:59 AM

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

Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

I do not propose a new biological activity test and am happy using LD50, heterotrophic cfu numbers, and hematocrit counts (forgot the term).

The requirement for proteomics is that spore samples be genetically identical and be prepared/treated identically, or with one known variable at most, AND differ significantly in biological activity (LD50, cfu, or microscopic count).

To elaborate, the following comparisons are NOT useful:

Flask prep vs fermentor prep

RIDD prep vs (b) (6) prep

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

From: (b) (6)

Sent: Tuesday, May 29, 2007 10:37 AM

To: (b) (6)

Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi (b) (6)

I am not sure how to answer your question so perhaps Bruce can do a better job here. We don't know the biological activity of the samples. What measurement or analysis would you recommend to ascertain that? We could probably provide matched-sets as in lot variations of material prepared the same way.

(b) (6)

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 10:26 AM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Cc: (b) (6)
Subject: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bruce,
Last week you gave me LD50 data for three preps: #1794 (@96), #793 (@361) and Vollum1B. I cannot use Vollum1B due to its genetic differences from Ames but I could use Sterne(pXO1+, pXO2-) if that were available). I am now wondering about the comparability of #1874 and #793 if only the latter was prepared by (b) (6). Although I can use these to set-up methods, I intend to collect samples for analysis on a best-matched pair of high vs. low activity. What I require are two lots from the same strain, manufacturer, and method (as close as possible) which differ notably in biological activity. Even the 27 different growth condition lots will not be comparable if one set is made by fermenter and the other set by flask, as I think I heard during last week's meeting.

Can somebody confirm that there will be well-matched sets of sample available for proteomics work?

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); (b) (6); (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 2:00:22 PM

Classification: UNCLASSIFIED
Caveats: NONE

I think that if you get exactly the same strain, prepared from the same seed stock, grown, harvested and purified the same way - you won't see any measurable difference in virulence. I'm not sure what you mean by heterotrophic cfu numbers, and I presume you mean Petroff-Hausser counts.

Some of the (b) (6) preps differ from each other due to the differences in seed stock that were used for inoculation.

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 10:59 AM
To: (b) (6); Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

I do not propose a new biological activity test and am happy using LD50, heterotrophic cfu numbers, and hematocrit counts (forgot the term).
The requirement for proteomics is that spore samples be genetically identical and be prepared/treated identically, or with one known variable at most, AND differ significantly in biological activity (LD50, cfu, or microscopic count).

To elaborate, the following comparisons are NOT useful:
Flask prep vs fermentor prep
RIDD prep vs (b) (6) prep

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 10:37 AM
To: (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi (b) (6)

I am not sure how to answer your question so perhaps Bruce can do a better job here. We don't know the biological activity of the samples. What measurement or analysis would you recommend to ascertain that? We could probably provide matched-sets as in lot variations of material prepared the

same way.

(b) (6)

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

From: (b) (6)

Sent: Tuesday, May 29, 2007 10:26 AM

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

Cc: (b) (6)

Subject: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Bruce,

Last week you gave me LD50 data for three preps: #1794 (@96), #793 (@361) and Vollum1B. I cannot use Vollum1B due to its genetic differences from Ames but I could use Sterne(pXO1+, pXO2-) if that were available). I am now wondering about the comparability of #1874 and #793 if only the latter was prepared by (b) (6). Although I can use these to set-up methods, I intend to collect samples for analysis on a best-matched pair of high vs. low activity. What I require are two lots from the same strain, manufacturer, and method (as close as possible) which differ notably in biological activity. Even the 27 different growth condition lots will not be comparable if one set is made by fermenter and the other set by flask, as I think I heard during last week's meeting.

Can somebody confirm that there will be well-matched sets of sample available for proteomics work?

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6)
Cc: (b) (6) [Ivins, Bruce E Dr USAMRIID](#)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 1:50:58 PM

Classification: UNCLASSIFIED
Caveats: NONE

Why would you use Sterne but not Vollum 1B? (b) (6) didn't prepare the spores, (b) (6) (b) (6) did. We purified them here after (b) (6) made them in fermentors. We made the 1749 strain in flasks of L&D medium. 793 has a high concentration (about 20%) of spores that give rise to non-encapsulated bacilli. The 1749 strain is close to 100% encapsulated.

We don't yet have two preps, prepared and purified exactly the same way, from the same place, that have greatly varying activity with respect to virulence.

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 10:26 AM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Cc: (b) (6)
Subject: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bruce,
Last week you gave me LD50 data for three preps: #1794 (@96), #793 (@361) and Vollum1B. I cannot use Vollum1B due to its genetic differences from Ames but I could use Sterne(pXO1+, pXO2-) if that were available). I am now wondering about the comparability of #1874 and #793 if only the latter was prepared by (b) (6). Although I can use these to set-up methods, I intend to collect samples for analysis on a best-matched pair of high vs. low activity. What I require are two lots from the same strain, manufacturer, and method (as close as possible) which differ notably in biological activity. Even the 27 different growth condition lots will not be comparable if one set is made by fermenter and the other set by flask, as I think I heard during last week's meeting.

Can somebody confirm that there will be well-matched sets of sample available for proteomics work?

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6)
Cc: (b) (6) [Ivins, Bruce E Dr USAMRIID](#)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 1:50:58 PM

Classification: UNCLASSIFIED
Caveats: NONE

Why would you use Sterne but not Vollum 1B? (b) (6) didn't prepare the spores, (b) (6) (b) (6) did. We purified them here after (b) (6) made them in fermentors. We made the 1749 strain in flasks of L&D medium. 793 has a high concentration (about 20%) of spores that give rise to non-encapsulated bacilli. The 1749 strain is close to 100% encapsulated.

We don't yet have two preps, prepared and purified exactly the same way, from the same place, that have greatly varying activity with respect to virulence.

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 10:26 AM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Cc: (b) (6)
Subject: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bruce,
Last week you gave me LD50 data for three preps: #1794 (@96), #793 (@361) and Vollum1B. I cannot use Vollum1B due to its genetic differences from Ames but I could use Sterne(pXO1+, pXO2-) if that were available). I am now wondering about the comparability of #1874 and #793 if only the latter was prepared by (b) (6). Although I can use these to set-up methods, I intend to collect samples for analysis on a best-matched pair of high vs. low activity. What I require are two lots from the same strain, manufacturer, and method (as close as possible) which differ notably in biological activity. Even the 27 different growth condition lots will not be comparable if one set is made by fermenter and the other set by flask, as I think I heard during last week's meeting.

Can somebody confirm that there will be well-matched sets of sample available for proteomics work?

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); (b) (6); (b) (6)
Cc: [Ivins, Bruce E Dr USAMRIID](#); (b) (6); (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 2:53:33 PM

Classification: UNCLASSIFIED
Caveats: NONE

I would think that two exactly genetically identical strains, prepared exactly the same way, from the same source, would probably be indistinguishable as far as virulence. We do know that broth spores are cleaner and more virulent than sheep blood agar spores, and we know that Ames spores are more virulent than Vollum 1B spores. Does proteomics distinguish quantitative differences, qualitative differences or both?

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 2:43 PM
To: (b) (6); Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

I'm not sure that we would observe a change/difference in virulence by altering just one variable at a time and it would take quite some time to go through all the possible variables to examine each and its effect on virulence. Just think of the number of variables that would have to be changed/examined one at a time! What we do know is that there are differences between strains (Ames and Vollum 1B) and maybe between preparations (flask and fermentor). It might be useful if we could demonstrate what similarities/differences exist between two preparations that are different/same culturally but similar/different in virulence. Is it known that two genetically identical strains prepared identically differ in virulence??

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 2:03 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6); (b) (6)
Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks Bruce. I was trying to puzzle out how we would get varying biological activities from identical preps?

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

From: Ivins, Bruce E Dr USAMRIID
Sent: Tuesday, May 29, 2007 2:00 PM
To: (b) (6); (b) (6); (b) (6)

Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

I think that if you get exactly the same strain, prepared from the same seed stock, grown, harvested and purified the same way - you won't see any measurable difference in virulence. I'm not sure what you mean by heterotrophic cfu numbers, and I presume you mean Petroff-Hausser counts.

Some of the (b) (6) preps differ from each other due to the differences in seed stock that were used for inoculation.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)

Sent: Tuesday, May 29, 2007 10:59 AM

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

Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

I do not propose a new biological activity test and am happy using LD50, heterotrophic cfu numbers, and hematocrit counts (forgot the term).

The requirement for proteomics is that spore samples be genetically identical and be prepared/treated identically, or with one known variable at most, AND differ significantly in biological activity (LD50, cfu, or microscopic count).

To elaborate, the following comparisons are NOT useful:

Flask prep vs fermentor prep

RIDD prep vs (b) (6) prep

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

From: (b) (6)

Sent: Tuesday, May 29, 2007 10:37 AM

To: (b) (6)

Subject: RE: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi (b) (6)

I am not sure how to answer your question so perhaps Bruce can do a better job here. We don't know the biological activity of the samples. What measurement or analysis would you recommend to ascertain that? We could probably provide matched-sets as in lot variations of material prepared the same way.

(b) (6)

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

From: (b) (6)
Sent: Tuesday, May 29, 2007 10:26 AM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Cc: (b) (6)
Subject: Biological activities of well-matched sample preps (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bruce,
Last week you gave me LD50 data for three preps: #1794 (@96), #793 (@361) and Vollum1B. I cannot use Vollum1B due to its genetic differences from Ames but I could use Sterne(pXO1+, pXO2-) if that were available). I am now wondering about the comparability of #1874 and #793 if only the latter was prepared by (b) (6). Although I can use these to set-up methods, I intend to collect samples for analysis on a best-matched pair of high vs. low activity. What I require are two lots from the same strain, manufacturer, and method (as close as possible) which differ notably in biological activity. Even the 27 different growth condition lots will not be comparable if one set is made by fermenter and the other set by flask, as I think I heard during last week's meeting.

Can somebody confirm that there will be well-matched sets of sample available for proteomics work?

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)
Date: Monday, June 04, 2007 1:42:21 PM

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6) and (b) (6)

I think that it would be tough to meet face-to-face the rest of the week due to the schedule of things here. I'd be happy to have a long talk on the phone if you like, I can arrange to be here at a certain time. Tomorrow morning I'm busy, but tomorrow afternoon or all day Wednesday would be fine. Sorry the flight was so delayed. We can still have a good long talk about things.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)
Sent: Monday, June 04, 2007 9:37 AM
To: Ivins, Bruce E Dr USAMRIID
Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)

Hi Bruce,

I am so sorry that you missed (b) (6). From what I understand you missed (b) (6) by about 30 seconds. Thank you for trying to meet with (b) (6) even though it did not work out. I hope you are not too tired today from last night. Again thank you for trying to meet with (b) (6). We look forward to talking to you about our work real soon. We have hired a Ph.D. level immunologist part time (we can not afford a full time Ph.D. person right now) to help us move our research forward. Things are going really well. We have been in the process of planning some new exciting experiments that will allow us to understand more about our vaccine.

Thanks,

(b) (6)

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

Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)
From: "Ivins, Bruce E Dr USAMRIID" <bruce.ivins@us.army.mil>
Date: Mon, June 04, 2007 4:15 am
To: (b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6)

I got to the hotel at 7:45 and waited until 10 pm. I had to leave to get back to the Metro which doesn't run all night. Sorry (b) (6) flight was so delayed. I left home at 6 pm and got home to Frederick about midnight. I look forward to talking to the two of you about your exciting work.

May your (b) (6) be a jewel and a blessing to you for your entire life!

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)

Sent: Sunday, June 03, 2007 5:25 PM

To: Ivins, Bruce E Dr USAMRIID

Subject: Dinner with (b) (6)

Hi Bruce,

I hope you are having a relaxing weekend. I just got a call from (b) (6) at the airport. (b) (6) said (b) (6) plane has been delayed by 1 hour, so (b) (6) arrival time is 8:40 instead of 7:40pm. (b) (6) would like to postpone your dinner with (b) (6) by one hour if that is ok with you. (b) (6) can be reached at (b) (6). Or you can call me at (b) (6). I am sorry about any inconvenience that this may cause you.

Thanks,

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)
Date: Monday, June 04, 2007 7:15:29 AM

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6)

I got to the hotel at 7:45 and waited until 10 pm. I had to leave to get back to the Metro which doesn't run all night. Sorry (b) (6) flight was so delayed. I left home at 6 pm and got home to Frederick about midnight. I look forward to talking to the two of you about your exciting work.

May your (b) (6) be a jewel and a blessing to you for your entire life!

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)
Sent: Sunday, June 03, 2007 5:25 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: Dinner with (b) (6)

Hi Bruce,

I hope you are having a relaxing weekend. I just got a call from (b) (6) at the airport. (b) (6) said (b) (6) plane has been delayed by 1 hour, so (b) (6) arrival time is 8:40 instead of 7:40pm. (b) (6) would like to postpone your dinner with (b) (6) by one hour if that is ok with you. (b) (6) can be reached at (b) (6). Or you can call me at (b) (6). I am sorry about any inconvenience that this may cause you.

Thanks,

(b) (6)

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)
Date: Tuesday, June 05, 2007 8:24:37 AM

Classification: UNCLASSIFIED

Caveats: NONE

Thanks, (b) (6) Would you like to give me a call on Wednesday, about 1 pm? Glad the conference is good!

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)
Sent: Monday, June 04, 2007 7:32 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)

Hey Bruce,

I am sorry that you came all this way for not, but I more than happy to chat on the phone. I will be tied up most of the day tomorrow, but I will have plenty of free time on Wednesday afternoon. I have a 3 hour window between the conference and the airport, so I am free to talk any time between 1:00 - 3:00 PM. If that is not good for you, then I can chat any time Thursday and Friday is mostly open, except for a lunch with a potential investor. Just let me know what works for you.

Also, the conference is very interesting!!!

Thanx,

(b) (6)

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

Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)
From: "Ivins, Bruce E Dr USAMRIID" <bruce.ivins@us.army.mil>
Date: Mon, June 04, 2007 1:42 pm
To: (b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Hi, (b) (6) (b) (6)

I think that it would be tough to meet face-to-face the rest of the week due to the schedule of things here. I'd be happy to have a long talk on the phone if you like, I can arrange to be here at a certain time. Tomorrow morning I'm busy, but tomorrow afternoon or all day Wednesday would be fine. Sorry the flight was so delayed. We can still have a good long talk about things.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

From: (b) (6)

Sent: Monday, June 04, 2007 9:37 AM

To: Ivins, Bruce E Dr USAMRIID

Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)

Hi Bruce,

I am so sorry that you missed (b) (6). From what I understand you missed (b) (6) by about 30 seconds. Thank you for trying to meet with (b) (6) even though it did not work out. I hope you are not too tired today from last night. Again thank you for trying to meet with (b) (6). We look forward to talking to you about our work real soon. We have hired a Ph.D. level immunologist part time (we can not afford a full time Ph.D. person right now) to help us move our research forward. Things are going really well. We have been in the process of planning some new exciting experiments that will allow us to understand more about our vaccine.

Thanks,

(b) (6)

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

Subject: RE: Dinner with (b) (6) (UNCLASSIFIED)

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

Date: Mon, June 04, 2007 4:15 am

To: <(b) (6)>

Classification: UNCLASSIFIED

Caveats: NONE

Hi, (b) (6)

I got to the hotel at 7:45 and waited until 10 pm. I had to leave to get back to the Metro which doesn't run all night. Sorry (b) (6) flight was so delayed. I left home at 6 pm and got home to Frederick about midnight. I look forward to talking to the two of you about your exciting work.

May your (b) (6) be a jewel and a blessing to you for your entire life!

-bruce

Bruce Ivins

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

From: (b) (6)
Sent: Sunday, June 03, 2007 5:25 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: Dinner with (b) (6)

Hi Bruce,

I hope you are having a relaxing weekend. I just got a call from (b) (6) at the airport. (b) (6) said (b) (6) plane has been delayed by 1 hour, so (b) (6) arrival time is 8:40 instead of 7:40pm. (b) (6) would like to postpone your dinner with (b) (6) by one hour if that is ok with you. (b) (6) can be reached at (b) (6). Or you can call me at (b) (6). I am sorry about any inconvenience that this may cause you.

Thanks,

(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: dose (UNCLASSIFIED)
Date: Wednesday, May 23, 2007 3:51:47 PM

Classification: UNCLASSIFIED
Caveats: NONE

But what does this mean as far as what the initial concentration is for the aerosol? (b) (6) should know, or (b) (6)

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Wednesday, May 23, 2007 3:26 PM
To: Ivins, Bruce E Dr USAMRIID; (b) (6)
Subject: dose (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bruce,
We will shoot for 1000 LD50. This is based on an LD50 of 11,400 spores for the AGM.

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: doses (UNCLASSIFIED)
Date: Thursday, June 07, 2007 12:02:13 PM

Classification: UNCLASSIFIED
Caveats: NONE

Easy to do. We'll give you the spores that we've been giving (b) (6) for (b) (6) recent studies.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)
Sent: Thursday, June 07, 2007 11:39 AM
To: Ivins, Bruce E Dr USAMRIID
Subject: FW: doses (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bruce,
Here is info for 16 monkeys for 3 July exposure.

(b) (6)

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

From: (b) (6)
Sent: Wednesday, June 06, 2007 1:02 PM
To: (b) (6)
Cc: (b) (6)
Subject: RE: doses (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We need 17 tubes containing 10 ml of 4 X10(9)/ml

(b) (6)

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

From: (b) (6)
Sent: Tuesday, June 05, 2007 5:03 PM
To: (b) (6)
Subject: doses (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

(b) (6)

Sorry for the bother but we need the suggested concentration for the AGM as several people will be away the next few weeks and we need to get things ready.

Thanks

(b)

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: (b) (6); (b) (6); (b) (6)
Subject: RE: Irradiated Samples (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 3:53:59 PM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

We're irradiating all 27 of the samples, (b) (6)

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

-----Original Message-----
From: (b) (6)
Sent: Tuesday, May 29, 2007 3:31 PM
To: Ivins, Bruce E Dr USAMRIID
Subject: Irradiated Samples (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi there,

I just want to make sure. You were irradiating 9 samples this week for (b) (6) and (b) (6) correct? (the 1C, 2C, 3C, etc.)

Were you going to send the samples in purification stages to (b) (6) as well? (the 1a, 1b, etc.) It is easy enough for (b) (6) to do it and I told (b) (6) it could be up to 27 samples.

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

----- End of Forwarded Message

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: pics (UNCLASSIFIED)
Date: Wednesday, May 30, 2007 3:07:50 PM

Classification: UNCLASSIFIED
Caveats: NONE

Thanks, (b) (6)

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

>
>From: (b) (6)
>Sent: Wednesday, May 30, 2007 2:59 PM
>To: Ivins, Bruce E Dr USAMRIID
>Subject: RE: pics (UNCLASSIFIED)

>
>Classification: UNCLASSIFIED
>Caveats: NONE

>
>It appears that (b) (6) and I acquired some 'raw' spore material from you which I believe was labeled 'raw prep, original spore count 2.09 x 10e9' in 1% phenol ...the material was received sometime in August 1992, but I think made in 1990?.....it was made in LD broth by you. Then I adjusted the spores to 0.1 g /ml milliQ (to perform renografin purification) and stored in 1% phenol. I am fairly certain this is accurate.

>From: Ivins, Bruce E Dr USAMRIID
>Sent: Monday, May 28, 2007 11:48 AM
>To: (b) (6)
>Subject: FW: pics (UNCLASSIFIED)

>
>Classification: UNCLASSIFIED
>Caveats: NONE

>Hi, (b) (6)

> I'm trying to identify records of old cultures and spore preps. Could you please look at the following picture (you sent it to me in January, 2002) and tell me what prep this is? I don't have a record of an "Ivins" strain, and we (b) (6), myself) made lots of spore preps and cultures.

>
> Anything you could find out and pass along on the origin or derivation of the material would be greatly appreciated. Thanks.

>-bruce

>From: (b) (6)
>Sent: Thursday, January 10, 2002 3:15 PM
>To: Ivins, Bruce E Dr USAMRIID

>Subject: pics
>
> << File: Ivins' spore culture.jpg >>
>
>Classification: UNCLASSIFIED
>Caveats: NONE
>
>Classification: UNCLASSIFIED
>Caveats: NONE
>
>Classification: UNCLASSIFIED
>Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); (b) (6)
Cc: (b) (6); (b) (6); (b) (6); (b) (6)
Subject: RE: Plague challenge (UNCLASSIFIED)
Date: Friday, June 08, 2007 10:41:06 AM

Classification: UNCLASSIFIED
Caveats: NONE

I'll need to know about what amount of time will be spent, and then I can figure out an approximate dollar estimate. It sounds like about 1/2 day, which would be (guesstimate) a couple of hundred dollars plus whatever is used for syringes, needles, etc.

(b) (6) is there more material, like syringes, needles, BCS pads, etc. or even replacement stuff (like new centrifuge bottles to replace the older warped ones we have in (b) (6) , that we need? (b) (6) does your lab need any material?

-bruce

Bruce Ivins

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

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

From: (b) (6)
Sent: Thursday, June 07, 2007 3:02 PM
To: (b) (6)
Cc: (b) (6); (b) (6) Ivins, Bruce E Dr USAMRIID;
(b) (6)
Subject: Plague challenge (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6)
(b) (6) As we discussed this morning, I would like to challenge 200 mice with 10-25 LD50 of Y. pestis CO92 in suite (b) (6). I ask (b) (6) if (b) (6) could challenge the mice, and (b) (6) agreed, pending any conflicts from (b) (6) normal duties. The challenge is scheduled for 21 September 2007. Please feel free to shift that date as necessary. Also, you were listed on my proposal for 5% of your salary and I am tracking it to make sure you get the salary money. Bruce, please let me know what I can order for you to cover (b) (6) time for the challenge.

Thanks,

(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Cc: (b) (6)
Subject: RE: SA numbers (UNCLASSIFIED)
Date: Friday, May 25, 2007 12:54:44 PM

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6)

I wasn't going to look too strenuously at the "bad" preps, but I am pushing toward trying to improve our best ones. The bad preps are very hard to work with and were difficult to resuspend. They will, in all probability, clump during an aerosol.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

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

From: (b) (6)
Sent: Friday, May 25, 2007 11:03 AM
To: Ivins, Bruce E Dr USAMRIID
Subject: SA numbers (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

The only preps I need SA numbers for are number 9 and number 10 from your "(b) (6) medium study excel sheet" when you assign them to be finished with that until the (b) (6) stuff starts arriving.

(b) (6)

P.s. Are you planning on any of the preps on the sheet I attached for additional testing for FY07 or FY08 that do NOT have (b) (6) numbers assigned yet?

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6) (b) (6)
Cc: (b) (6)
Subject: RE: Training and use of your LSR11? (UNCLASSIFIED)
Date: Wednesday, June 06, 2007 4:09:11 PM

Classification: UNCLASSIFIED
Caveats: NONE

I don't think that dialysis would be particularly efficient at getting rid of phenol. Why not just dilute in water?

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

-----Original Message-----
From: (b) (6)
Sent: Wednesday, June 06, 2007 10:53 AM
To: (b) (6) (b) (6)
Cc: (b) (6) Ivins, Bruce E Dr USAMRIID
Subject: Training and use of your LSR11? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dear (b) (6)
I would like my (b) (6) use the LSR11 instrument in (b) (6) lab for analysis of gamma-irradiation killed spores as part of the spore production team research objectives. (b) (6) asked me to contact you about this. I have a published procedure used to correlate spore viability in *B. subtilis* with autofluorescence. (b) (6) LSR 11 is the only FACS instrument in the institute having a uv source laser for sample excitation, required for this intrinsic fluorescence test. None of 16 references I looked at concerning FACS of *B. anthracis* spore indicated extraordinary need for post-use cleaning (spores may be sticky?). However, we will dialyze the spore preparations into water by application to remove their 1% phenol content. (b) (6) will need instrument training as (b) (6) has not used a FACS or your instrument.

Please contact me at your convenience so we can plan experiments.

Sincerely,
(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: W81XWH-06-C-0006 Vital Probes Report (UNCLASSIFIED)
Date: Thursday, May 31, 2007 8:42:02 AM

Classification: UNCLASSIFIED

Caveats: NONE

I'll get to it today, (b) (6) Thanks!

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

>

> From: (b) (6)

> Sent: Thursday, May 31, 2007 8:32 AM

> To: Ivins, Bruce E Dr USAMRIID

> Subject: W81XWH-06-C-0006 Vital Probes Report (UNCLASSIFIED)

> Importance: High

>

> Classification: UNCLASSIFIED

> Caveats: NONE

>

> Classification: UNCLASSIFIED

> Caveats: NONE

>

> << File: VPI W81XWH-06-C-0006 PhII Apr 2007 - May 2007 Tech.doc >> << File: invoice.pdf >>

>

>

>

>

> Good Morning Dr. Ivins,

>

> I just wanted to check on the status of the attached report and invoice for your review. If everything meets your approval please let me know and I will forward the invoice for payment.

>

> Thanks,

>

(b) (6)

>

>

>

>

>

>

> Classification: UNCLASSIFIED

>Caveats: NONE

>

>Classification: UNCLASSIFIED

>Caveats: NONE

>

>Classification: UNCLASSIFIED

>Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6)
Subject: RE: W81XWH-06-C-0006 Vital Probes Report (UNCLASSIFIED)
Date: Thursday, May 31, 2007 4:02:50 PM

Classification: UNCLASSIFIED
Caveats: NONE

(b) (6)

I'll approve the payment, but I'm going to watch the next couple of months to see if they resolve the problem that they've reported. They seem to be a bit behind in "actual" work versus "proposed" work, and if they don't get the problem fixed in a couple of months, I'll have to get with you and ask about paying for work that is seriously behind schedule. As of now, it's not bad, and definitely fixable.

-bruce

Bruce Ivins

(b) (6)

(b) (6)

(b) (6)

>

>From: (b) (6)

>Sent: Thursday, May 31, 2007 8:32 AM

>To: Ivins, Bruce E Dr USAMRIID

>Subject: W81XWH-06-C-0006 Vital Probes Report (UNCLASSIFIED)

>Importance: High

>

>Classification: UNCLASSIFIED

>Caveats: NONE

>

>Classification: UNCLASSIFIED

>Caveats: NONE

>

> << File: VPI W81XWH-06-C-0006 PhII Apr 2007 - May 2007 Tech.doc >> << File: invoice.pdf >>

>

>

>

>

>Good Morning Dr. Ivins,

>

>I just wanted to check on the status of the attached report and invoice for your review. If everything meets your approval please let me know and I will forward the invoice for payment.

>

>Thanks,

>

>(b) (6)

>

>

>

>

>

>

>

>

>

>

>

>

>

>

>Classification: UNCLASSIFIED

>Caveats: NONE

>

>Classification: UNCLASSIFIED

>Caveats: NONE

>

>Classification: UNCLASSIFIED

>Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6); (b) (6); (b) (6); (b) (6)
Cc: (b) (6); (b) (6); (b) (6); (b) (6)
Subject: Samples for irradiation (UNCLASSIFIED)
Date: Thursday, June 07, 2007 10:36:39 AM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

The 27 spore samples that were irradiated on 30 MAY 07 (see enclosed file) came back still "hot." The samples will be divided into two containers, 13 in one container and 14 in another, and each will be irradiated on Monday, 11 June 07. I've asked (b) (6) to give each container a dose of 1 million Rads (1 X 10e6), which should kill the remaining viable spores without "frying" the preps. When we get them back, they will be re-examined for viability on SBA plates.

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)

Classification: UNCLASSIFIED
Caveats: NONE

From: [Ivins, Bruce E Dr USAMRIID](#)
To: (b) (6) (b) (6)
Cc: (b) (6) (b) (6)
Subject: Test of NSM + CaCl2 (UNCLASSIFIED)
Date: Tuesday, May 29, 2007 2:45:48 PM
Attachments: [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE

Here is the next run for the preps we've been doing for (b) (6). It's NSM + CaCl2, but we've added 25% more of the nitrogen sources. We will also have 2 flasks with the same Calcium and manganese levels as before, and 2 flasks with twice the level as before. We want to see if we can bump up the spore yield without increasing any debris, vegetative cells, non-refractile spores or other debris.

-bruce

Bruce Ivins
(b) (6)
(b) (6)
(b) (6)
Classification: UNCLASSIFIED
Caveats: NONE