552.111 throughout

Date: 8/8/2014 1:28:04 PM From: "Cross, Robert W."

To: "Ramirez, Donna R." d1ramire@UTMB.EDU Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: FW: CNN Contact....FW: Ebola and the medical community

Attachment: image001.png;

Hi Donna,

I'm a post doc in Dr. Thomas Geisbert's laboratory and I've recently been contacted by a friend of mine who is a producer at CNN. He is interested in some off record consultation on the current outbreak and its potential impact of the current ebola outbreak on the immediate scientific community working in filovirus/emerging viruses. Importantly, this will not be for anything that will be on record, more so to help him with story development along these lines (ie subject matter, points of contact for interviews, ect...).

Do you have any reservations or recommendations on how to proceed?

Kindest regards,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-266-6594 rwcross@utmb.edu



Working together to work wonders."

From: Geisbert, Thomas W.

Sent: Friday, August 08, 2014 8:28 AM

To: Cross, Robert W. **Cc:** Mire, Chad

Subject: RE: CNN Contact....FW: Ebola and the medical community

you need to run it by Donna Ramirez in

media relations here first.

Tom

From: Cross, Robert W.

Sent: Thursday, August 07, 2014 5:59 PM

To: Geisbert, Thomas W.

Cc: Mire, Chad

Subject: CNN Contact....FW: Ebola and the medical community

Hey Tom,

A friend of mine's husband is a producer at CNN and has contacted me below. Judging from a phone conversation with her, I think it is for some off record consultation for story development about impacts of this outbreak on folks in our immediate community (i.e. the scientific community actually working in the filovirus/emerging virus arena). Likely giving topic leads and points of contact on people to approach for interviews (you obviously would be a POC).

Would you prefer to talk with him directly or do you have any reservations on my talking with him on this topic provided it is off record?

Thanks for considering it,

Bob

From: Kaplan, Peter [mailto:Peter.Kaplan@turner.com]

Sent: Thursday, August 07, 2014 5:03 PM

To: Cross, Robert W.

Subject: Ebola and the medical community

Hi Bob,

Brandy threw me your email, and I was curious to talk to someone in the medical community about the Ebola outbreak.

If you want to exchange a few emails on this, please let me know.

This isn't for reporting or anything, more just curiosity on my part.

Thanks!

Peter Kaplan

CNN | Producer | 404.825.0308 | peter.kaplan@turner.com

Date: 10/15/2014 2:01:46 PM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: FW: Ebola RDT - CONFERENCE CALL - 1 pm Mountain - 2 pm

Central - PLEASE CONFIRM - NUMBERS INCLUDED

Sorry to bug...Did you want me to sit in on this with you for specifics?

В

From: Matt Boisen [mailto:mboisen24@gmail.com] **Sent:** Wednesday, October 15, 2014 11:44 AM

To: Erica Ollmann Saphire

Cc: Cross, Robert W.; Molly Millett; Luis Branco - ZalgenLabs. com; Geisbert, Thomas W.;

Russell Wilson; Garry, Robert F; Doug Simpson

Subject: Re: Ebola RDT - CONFERENCE CALL - 1 pm Mountain - 2 pm Central - PLEASE

CONFIRM - NUMBERS INCLUDED

Please mention how helpful it would be if they could at least accelerate the funding we've already been awarded ie yrs 4&5.

On Oct 15, 2014 10:41 AM, "Erica Ollmann Saphire" < erica@scripps.edu> wrote: I can't make a call today, but please fill me in by email if you need something from me.

I'll be at DARPA and the white hosue science office next week and will mention how badly we need rapid diagnostics and I know a good one. About how much would you expect they would cost?

Erica Ollmann Saphire, Ph.D.
Professor,
Dept. of Immunology & Microbial Science
Co-Director,
Global Virus Network Center of Excellence

The Scripps Research Institute 10550 North Torrey Pines Road, IMM-21 La Jolla, CA 92037

Tel: (858)784-8602 erica@scripps.edu

On Oct 15, 2014, at 9:33 AM, Garry, Robert F wrote:

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227 From: "mboisen24@gmail.com" <mboisen24@gmail.com>

Date: Wednesday, October 15, 2014 9:48 AM **To:** Tom Geisbert <twgeisbe@utmb.edu>

Cc: "Luis Branco - ZalgenLabs. com" < lbranco@zalgenlabs.com

<u>molly.marie.millett@gmail.com</u>>, "Cross, Robert W." < <u>rwcross@utmb.edu</u>>, Erica Ollmann Saphire < <u>erica@scripps.edu</u>>, Russell Wilson < <u>rbw@autoimmune.com</u>>, Robert Garry

<rfgarry@tulane.edu>, Doug Simpson <dsimpson324@yahoo.com>

Subject: RE: Ebola RDT

Yes its at the bottom of my signature but I'll send it out too.
On Oct 15, 2014 9:45 AM, "Geisbert, Thomas W." <twgeisbe@utmb.edu> wrote:

How about 1 pm Mountain so 2 pm Central? Is there a call in number that can be set up?

From: Matt Boisen [mailto:<u>mboisen24@gmail.com</u>]

Sent: Wednesday, October 15, 2014 7:45 AM

To: Geisbert, Thomas W.

Cc: Garry, Robert F; Cross, Robert W.; Russell Wilson; Luis Branco - ZalgenLabs.com; Doug

Simpson; Erica Ollmann Saphire; Molly Millett

Subject: Re: Ebola RDT

Hi Tom,

This afternoon would be good sometime between 1pm-3pm MST. I've been compiling data from Augustine in Kenema into a powerpoint summary and will forward to you later.

Currently, Corgenix is beginning to prepare Pilot Lot materials and gathering momentum to the production of scaled-up LFI & ELISA kits (actually we start full scale ELISA plate coatings this morning). We have not received the final template for EUA required testing from the FDA but as Bob mentioned it will most certainly include viral pfu/mL cut-off and cross-reactive/nearest neighbor testing.

Sorry I have such a narrow window but I have two appointments today and travel to NOLA tomorrow. If your available I will send out an invite to everyone.

Matt

On Wed, Oct 15, 2014 at 6:16 AM, Geisbert, Thomas W. <twgeisbe@utmb.edu> wrote:

Bob,

Yes, we can help. It may be easier to set up a telecom to discuss. Is there a good time this afternoon to do this?

Tom

From: Garry, Robert F [mailto:rfgarry@tulane.edu]

Sent: Tuesday, October 14, 2014 6:02 PM **To:** Geisbert, Thomas W.; Cross, Robert W.

Cc: Russell Wilson; Luis Branco - ZalgenLabs.com; mboisen24@gmail.com; Doug

Simpson; Erica Ollmann Saphire

Subject: Ebola RDT



1430 Tulane Avenue, JBJ568 New Orleans, LA 70118

504-988-2027 phone 504-905-5635 cell 504-988-1994 fax 504-988-3818 lab rfgarry@tulane.edu

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA

Phone: 303-775-7752 mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227 Date: 12/6/2014 4:40:49 PM From: "Cross, Robert W."

To: "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com

Cc: "Moses, Lina M" lmoses2@tulane.edu

Subject : FW: EBOV+/LASV+ case

CC'd Luis

From: Moses, Lina M [Imoses2@tulane.edu] **Sent:** Saturday, December 06, 2014 4:36 PM

To: Garry, Robert F; Cross, Robert W.; Schieffelin, John S; Augustine Goba; Jessica Grove

Subject: EBOV+/LASV+ case

Hi folks,

Pulling this off the other email stream. I just spoke to Augustine about this case and here are more details. Augustine, please correct if I have anything wrong.

Augustine and Mambu tested the sample and here are results of initial screening:



Lina

Date: 11/17/2014 12:58:20 PM From: "Cross, Robert W."

To: "Mire, Chad" chmire@UTMB.EDU

Subject: FW: update from salone

Hey man,

Sorry, thought I CC'd you too...easier to forward email stream is below with a little update from today...

Busting my hump with 14-16hr days to enable getting the workload done. RDTs are performing well out here. Seems to be a high likelihood of uptake of the technology when interacting with other testing facilities. Everyday has had new challenges...Desperately trying to finish uploading LRP materials via africa internet...very long process...like dial up speed at best. Certainly miss the air-conditioning of the Dover, though the rains have kept it pretty cool for the most part. Working in Africa is a whole other animal on multiple levels, will elaborate over beers for sure.

Also working on our shipment back, some details in email below, but may also be including serum in our shipment from a convalescent EBOV patient that didn't make the screening process due to possibly still shedding...might be interesting. Some possible LASV/EBOV coinfections popping up as well....

Its definitely not the same place I visited in 2009, much quieter. Very evident that EBOV is here. A lot of heavy losses here in Kenema that folks are still rebuilding from.

More soon,

В

From: Cross, Robert W.

Sent: Monday, November 17, 2014 4:58 AM

To: Geisbert, Thomas W.

Subject: RE: update from salone

thanks so much!

552.111 throughout

more soon,

b

From: Geisbert, Thomas W.

Sent: Sunday, November 16, 2014 11:11 AM

To: Cross, Robert W.

Subject: RE: update from salone

Bob,

Thanks for the info. I had a very productive week in Geneva at WHO and will fill you in when you return. On the PBMC are these from survivors? On the LRP and a return visit I am supportive on both.

Stay safe.

Tom

From: Cross, Robert W.

Sent: Sunday, November 16, 2014 8:23 AM

To: Geisbert, Thomas W. **Subject:** update from salone

Hi Tom!

Just wanted to drop a line to update you on things on the ground. I apologize for the length.

Comparatively quieter in Kenema than the situation in the west of the country, which is comforting. No cases in this district in 15 days which is super comforting. The group has been extremely productive on many levels, All PBMCs have been collected and are enroute out of the country.

I'm working up the sample list for the shipment back home to UTMB and will send Corrie and Bob G the list to finalize shipping permissions from World Courier and the Ministry of Health here in SL.



Also, I'm submitting my LRP materials tomorrow, so there will be an email from them regarding the need for reference write-up. Just like last year, I'll get a draft of the LOR for you to ease the process on your end.

Finally, thank you so much for allowing me to go on this trip, this has already been such an amazing experience and yes I'm getting you a lot of pictures. To that end, the guys from WHO GOARN seem very keen on having me return for a short tour in the new yea (likely Sierra Leone or Liberia as a laboratory coordiantor, I'm not sure where you stand on it, and don't want to press my luck...but it may be a good thing to consider for me professionally.

Talk with you soon!

Bob

Date: 10/31/2014 1:26:25 PM From: "Cross, Robert W."

To: "Geisbert, Thomas W. (twgeisbe@UTMB.EDU)" twgeisbe@UTMB.EDU

Subject: FW: WHO GOARN Program through UTMB

Attachment: image001.png;

FYI. This morning, Dr. Leduc invited/encouraged me to apply for this. Apparently UTMB is part of the WHO GOARN now, and so Dr. Leduc thought to perhaps put me under those auspices as for this trip and perhaps beyond. They have funding for lab costs/travel support as appropriate.

I don't know if anything will come of it immediately, but could serve to open some doors for the lab in the future.

Just making sure you are in the loop.

Bob

From: LeDuc, James W.

Sent: Friday, October 31, 2014 12:44 PM

To: Drury, Patrick Anthony; goarn (goarn@who.int)

Cc: Ksiazek, Thomas G.; Cross, Robert W.

Subject: FW: WHO GOARN Program through UTMB

Importance: High

Pat, colleagues,

Please see letter of interest below from Dr Robert Cross indicating his willingness to deploy as part of the GOARN Ebola response. Bob is currently working in our BSL4 laboratories on Ebola and other highly pathogenic viruses and has experience working in Kenema, Sierra Leone. He has my strongest support and endorsement. Please feel free to contact him directly for further information or to start the process of UN training.

Thanks, Jim

James W. Le Duc, Ph.D.
Director
Galveston National Laboratory
University of Texas Medical Branch
Galveston, TX 77555-0610
(t) 409-266-6500
(f) 409-266-6810
jwleduc@utmb.edu

From: Cross, Robert W.

Sent: Friday, October 31, 2014 11:52 AM

To: LeDuc, James W. **Cc:** Ksiazek, Thomas G.

Subject: WHO GOARN Program through UTMB

Hi Dr. Leduc,

This email is to express my interest for involvement in the WHO GOARN program through UTMB. I feel my previous field and laboratory experience with high priority viruses makes me well suited to serve in an support role for the central mission of the GOARN. An example of why I might be suited for involvement in the WHO program would by my upcoming involvement in a research mission to Sierra Leone in collaboration with Tulane University and biotech firm, Corgenix.

There is currently an uneven level of diagnostics support throughout outbreak treatment centers in the current Ebola outbreak in West Africa. As a response to this issue, Corgenix has recently developed a sensitive rapid diagnostic assay that likely aid in rapid diagnosis and subsequent triage of suspect Ebola patients. The primary objective of the upcoming trip will be to validate these newly developed rapid diagnostics at a field site at the Kenema Government Hospital in Kenema, SL. I was invited to participate in this particular mission due to my extensive high-containment experience as well as my familiarity with doing infectious disease related field work, particularly in resource poor setting such as Sierra Leone. Data from this trip will be used with the intention of acquiring FDA Emergency Use Authorization for this assay to enable rapid distribution to other responders in the current Ebola outbreak in Guinea, Sierra Leone, and Liberia.

This mission will take place from November 08-23, 2014. Though we will be on the ground a short time, I would gladly be willing to assist in any WHO GOARN related matters while I'm on the ground at this time, as appropriate. If for some reason, there is no immediate need for my services while I'm in country; I would gladly entertain prospects of involvement in future outbreak related missions through the WHO GOARN/UTMB umbrella.

Please see my attached CV and let me know if more information is needed.

Many thanks!

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu



Working together to work wonders."



Date: 3/25/2014 6:55:31 AM From: "Cross, Robert W."

To: "Mire, Chad" chmire@UTMB.EDU, "lmoses2@tulane.edu" lmoses2@tulane.edu, "Lina Moses" linammoses@gmail.com

Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: Fwd: Call with Corrie

FYI B

Sent from mobile

Begin forwarded message:

From: "Moses, Lina M" < lmoses2@tulane.edu>

Date: March 25, 2014 at 2:35:41 CDT

To: "Cross, Robert W." <rwcross@UTMB.EDU

contifor@UTMB.EDU>,

"<u>linammoses@gmail.com</u>" <<u>linammoses@gmail.com</u>> **Cc:** "Geisbert, Thomas W." <twgeisbe@UTMB.EDU>

Subject: RE: Call with Corrie

Bob, sounds like a good plan. When I get back to Kenema tomorrow, I will lean on Augustine and recruit Dr. Khan to put some muscle in as well. He wants these samples out as soon as possible.

Corrie, here is the information you requested:

- Entity Name: Kenema Government Hospital Lassa Fever Laboratory
- Complete Address: Combema Road, Kenema, Sierra Leone
- Facility Director: Augustine Goba
- Facility Director Telephone #232 76 757 859
- Facility Director Fax # (if you have one): None
- Facility Director email address: augstgoba@yahoo.com

I accidentally deleted Chad Mire from this email, but can't pull up his email with the slow internet. Can you please forward? Thanks.

Lina

From: Cross, Robert W. < <u>rwcross@UTMB.EDU</u>> Sent: Monday, March 24, 2014 8:56 PM

To: Ntiforo, Corrie; Moses, Lina M; linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad

Subject: RE: Call with Corrie

Hey Lina:

A couple more small, but important, points to add to Corrie's request below.

After some discussion on this end, it appears the easiest and most logical way to do this will be for us to submit a Form 2 (SA) permit request. To hedge our bets for future work, we'll also be submitting for an ongoing permit for diagnostics (for relevant VHFs) that will carry us through the year and help with subsequent, non-confirmed samples. Once you provide the info below Corrie will submit this week.

For now, the goal is still currently to combine the shipment of PCR positive LASV samples and the more recent suspect samples using the Form 2 permit as it appears we'll have the best and fastest success rate with this. This being said, in addition to the information below, we will still need to get the final inventory with volume estimates before we can pack the box for shipment. Maybe an idea to apply a little gentle pressure to Augustine to complete this for us. It will be important that these samples do not have relevant health ID information (ie we have to be blinded) on the tubes outside of unique identifiers coded by your side. Otherwise we will need IRB approvals, which to my knowledge, we specifically do not have for these types of samples. Finally, it is advised that we try to keep the total volume for the shipment under 50mls total so that we will not be restricted to "cargo" only flights, having options for puddle jumpers might not be a bad thing so these samples don't end up sitting waiting on the next flight in, which as we know could be up to an additional week depending on timing. So if we have to break up shipments, I don't think this would necessarily be a bad thing. This would also help to ensure that if anything went wrong with the shipment, we wouldn't lose "everything".

I understand there are some internal approvals necessary with the Ministry Ethics committee, so getting us the info below ASAP will help to get the process started on our end so that once your letter is in hand we can (hopefully) already have the majority of the permit process complete on this end and hopefully get these samples on their way.

Once every T is crossed and I is dotted, we can provide you the UTMB World Courier account information, and you can arrange shipment out of Freetown at your earliest convenience. Let us know if any of these last two notes are unclear and we will do our best to make sure we clarify everything properly to make sure we are all on the same page and doing this all by the book.

Talk with you soon,

Bob C.

From: Ntiforo, Corrie

Sent: Monday, March 24, 2014 8:13 PM

To: Cross, Robert W.; Moses, Lina M; linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad

Subject: RE: Call with Corrie

In order to get the ball rolling on the CDC form 2 permit, we will need the following senders information:

• Entity Name

- Complete Address
- Facility Director
- Facility Director Telephone #
- Facility Director Fax # (if you have one)
- Facility Director email address

Generally it takes 24-48 hrs to receive approval, however, we will make a call once we submit the form 2 to speed things along.

Corrie

From: Cross, Robert W.

Sent: Monday, March 24, 2014 3:03 PM **To:** Moses, Lina M; linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad; Ntiforo, Corrie

Subject: RE: Call with Corrie

No problem, I'll send you a list of what we will need from you information-wise for us to get the necessary permits and enable shipment shortly. If you can get any material from this additional case added, that would be ideal.

Be careful out there!

Bob

From: Moses, Lina M [mailto:lmoses2@tulane.edu]

Sent: Monday, March 24, 2014 2:50 PM **To:** Cross, Robert W.; linammoses@gmail.com

Subject: RE: Call with Corrie

Hey. Sorry in the middle of no where trying to track down the ebola case. We found it!!! Heading to the village tomorrow.

I have 1 100ul cryotube from each of the two guinea samples. Nadia (Metabiota) testing them by PCR for marburg and Ebola zaire and they were negative, but her regents have had crappy storage. I have to get ethics approval to send these samples and am working on writing up

that letter now.

You can call now or anything in the next couple of hours if you need.

Lina

From: Cross, Robert W. <rwcross@UTMB.EDU>

Sent: Sunday, March 23, 2014 4:45 PM
To: linammoses@gmail.com; Moses, Lina M

Subject: Call with Corrie

Hey there,

We will try to call you again sometime between 11-1 central US; 4-6pm Salone time.

Will that work for you?

Bob

Date: 11/10/2014 10:09:31 AM From: "Cross, Robert W."

To: "rfgarry@tulane.edu" rfgarry@tulane.edu, "Augustine Goba"

augstgoba@yahoo.com, "lbranco@zalgenlabs.com" lbranco@zalgenlabs.com

Subject: Fwd: Form 2 Kenema

FYI

Sent from mobile

Begin forwarded message:

From: "Zimmerman, Dee" < dzimmerm@UTMB.EDU>

Date: November 10, 2014 at 10:02:29 CST

To: "Cross, Robert W." < rwcross@UTMB.EDU >, "Geisbert, Thomas

W." < twgeisbe@UTMB.EDU >, "Ntiforo,

Corrie" contifor@UTMB.EDU

Subject: Form 2 Kenema

We have received the form 2 approval.

Domenica (Dee) Zimmerman Biosafety Officer Alternate Responsible Official Environmental Health and Safety University of Texas Medical Branch 301 University Blvd. Galveston, TX 77555 Tel: 409 772-8137

Fax: 409 772-8137

Email: dzimmerm@utmb.edu

The contents of this electronic communication may be confidential by law and cannot be released to an unauthorized person. This communication is only for the intended recipient. You may not forward or otherwise distribute this communication or its contents without my express authorization. If you are not the intended recipient or have otherwise received this in error, please notify me and delete this communication and any attachments.

Date: 12/14/2014 6:15:04 PM From: "Cross, Robert W."

To: "John S Schieffelin" jschieff@tulane.edu

Subject: Fwd: from Mambu... FYI

FYI, I'm assuming he meant you.

Bob

Sent from mobile

Begin forwarded message:

From: "Garry, Robert F" < refgarry@tulane.edu>
Date: December 14, 2014 at 18:13:03 CST

To: Luis Branco - <u>ZalgenLabs.com</u> < <u>lbranco@zalgenlabs.com</u> > **Cc:** "Garry, Robert F" < <u>rfgarry@tulane.edu</u> >, Matt Boisen

<<u>mboisen24@gmail.com</u>>, Doug Simpson <<u>dsimpson@corgenix.com</u>>, Russell Wilson

<rbw@autoimmune.com>, Jessica Hartnett <j.n.grove@gmail.com>,

"Cross, Robert W." <rwcross@utmb.edu>

Subject: Re: from Mambu... FYI

John
Please send copies of the approvals
B

Sent from my iPhone

On Dec 14, 2014, at 3:14 PM, "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com> wrote:

Hi Luis, we're so far good but I think WHO or CDC are not happy us here coz we have been working alongside IFRC kenema when only today one of their Doctors incharge now in Kono was demanding to see ethics approval of our kits to be sent to red cross federation before he will be comfortable for us to work in their triage just set up. We discussed getting them the MOHS ethics approval tomorrow. I believed either WHO or CDC or even both are behind this because to the extent we were to go back to kenema yesterday to be receiving samples there from Kono according to CMO but the paramount chiefs and people of Kono directly called the CMO that our presence here is more than everything for now in this fight and they haved vowed not to release us. So CMO have to concord yesterday and the laboratory technical working group from Freetown. So we hopeful of continuing

Meanwhile, am feeling some tired and was suggested for Mr Goba to replace for a while as continuous exposure is not too good in this context. So he comes tomorrow, then I will be leaving for sometime After screening about 10 suspects in the holding center tomorrow

--

Luis M Branco, Ph.D. Co-Founder, Zalgen Labs, LLC 20271 Goldenrod Lane, Suite 2083 Germantown, MD 20876 504-444-7047 (cell) 504-252-0889 (main) lbranco@zalgenlabs.com Date: 11/28/2014 10:34:08 AM From: "Cross, Robert W."

To: "Mire, Chad" chmire@UTMB.EDU

Subject: Fwd: From Mr Gbetuwa

Just an FYI, one of the many fruits of the trip...looks like we may have facilitated a national repository creation!! Also, some talk of this becoming a regional VHF reference lab for West Africa....

В

Sent from mobile

Begin forwarded message:

From: Momoh Gbetuwa < momohgbetuwa@yahoo.com >

Date: November 27, 2014 at 2:03:33 EST

To: Robert FGarry <rfgarry@tulane.edu>, John SSchieffelin

<jschieff@tulane.edu>, Luis Branco <lbranco08@gmail.com>, Lina

Moses " Robert

W.Cross" <rwcross@utmb.edu>, augstgoba <augstgoba@yahoo.com>,

simbirie jalloh <<u>simbiriej5@gmail.com</u>>

Subject: Re: From Mr Gbetuwa

Dear Dr Robert

I had being for a scientific presentation in Freetown. In my presntation i made mention of the the work Tolen researchers are doing atthe lasa research lab in Kenema regarding the ebola rapid diagnostic test kit and did expressed grate interest for us to cascade this test throughout the country, this was discussed with Pro Gevao and did welcome the idea. At the end of the occasion i had a meeting with the chief medical officer (CMO) the director of hospital and laboratories, some ministers and some senior medical professionals that were present in the foroum and suggested that if i could fast track the cascade the use of this kits. I wrote a letter requesting the use of this kits for validation across all the holdin and treatment centers in the country. This letter has being approved by the CMO and a copy has being giving to Augustine Goba and Simbirie, this am sure has being copied to you. I held a meeting with Augustine Goba taking him through what was discused in the meeting held in Freetown and he was as more than welcome the idea. I am to start collecting all samples in all the ebola holding and treatment centers across the country to be able to validate these test kits.

I will be more than welcome for any recommendations from you regarding the sample collction and transportation.

Kind regards

Gbetuwa

On Tue, 11/25/14, simbirie jalloh <simbiriej5@gmail.com> wrote:

Subject: From Mr Gbetuwa

To: "Garry, Robert F" < rfgarry@tulane.edu>, "John

SSchieffelin" < jschieff@tulane.edu >, "Luis

Branco" < lbranco08@gmail.com >, "Lina

Moses" linammoses@gmail.com>, "Cross, Robert

W." <rwcross@utmb.edu>, "Momoh

Gbetuwa" <momohgbetuwa@yahoo.com>,

"augstgoba" <augstgoba@yahoo.com>

Date: Tuesday, November 25, 2014, 5:20 PM

Dear All,

Please find attached a letter from the Head of the VHFs Lab,

Mr.

Gbatuwa will give vivid explaining pertaining this letter.

Best regards

--

Simbirie Jalloh

Program Coordinator

Tulane/Lassa Fever Research Program -S/Leone

+232 33 491338/+232 76 350527

Date: 11/27/2014 8:01:41 AM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: Fwd: From Mr Gbetuwa

Happy turkey day to you and Joan!!

Just an FYI, one of the many fruits of the trip...looks like we may have facilitated a national repository creation!! Also, some talk of this becoming a regional VHF reference lab for West Africa....

В

Sent from mobile

Begin forwarded message:

From: "Schieffelin, John S" < jschieff@tulane.edu>

Date: November 27, 2014 at 7:26:04 CST

To: Momoh Gbetuwa <momohgbetuwa@yahoo.com>, "Garry, Robert

F" <rfgarry@tulane.edu>, "Schieffelin, John

S" <jschieff@tulane.edu>, "Luis Branco" <lbranco08@gmail.com>,

Lina Moses " Robert

W.Cross" <rwcross@utmb.edu>, augstgoba <augstgoba@yahoo.com>,

simbirie jalloh <<u>simbiriej5@gmail.com</u>>

Subject: Re: From Mr Gbetuwa

Gbetuwa,

Thank you for your email. We are also very excited about this test. However, we have to be cautious with the initial testing. We would be doing the country of Sierra Leone a great disservice if we deployed a test

during this outbreak that we were not 100% confident in. Nevertheless, with all of the great support we are receiving, I believe that we will get the initial testing done quickly. Once complete, the broader deployment

can proceed quickly.

Making KGH a repository for all Ebola samples is invaluable.

John

__

John S. Schieffelin, M.D., M.S.P.H. Assistant Professor of Pediatrics and Internal Medicine Sections of Infectious Disease Tulane University School of Medicine 1430 Tulane Ave TB-8 New Orleans, LA 70112 jschieff@tulane.edu (504) 988-5117 (office) (504) 988-2613 (fax)

On 11/27/14 1:03 AM, "Momoh Gbetuwa" <momohgbetuwa@yahoo.com> wrote:

Dear Dr Robert

I had being for a scientific presentation in Freetown. In my presntation

i made mention of the the work Tolen researchers are doing atthe lasa

research lab in Kenema regarding the ebola rapid diagnostic test kit and

did expressed grate interest for us to cascade this test throughout the

country, this was discussed with Pro Gevao and did welcome the idea. At

the end of the occasion i had a meeting with the chief medical officer

(CMO) the director of hospital and laboratories, some ministers and some

senior medical professionals that were present in the foroum and

suggested that if i could fast track the cascade the use of this kits. I

wrote a letter requesting the use of this kits for validation across all

the holdin and treatment centers in the country. This letter has being

approved by the CMO and a copy has being giving to Augustine Goba and

Simbirie, this am sure has being copied to you. I held a meeting with

Augustine Goba taking him through what was

discused in the meeting held in Freetown and he was as more than welcome

the idea. I am to start collecting all samples in all the ebola holding

and treatment centers across the country to be able to validate these

test kits.

I will be more than welcome for any recommendations from you regarding

the sample collction and transportation.

Kind regards

Gbetuwa

On Tue, 11/25/14, simbirie jalloh <simbiriej5@gmail.com> wrote:

Subject: From Mr Gbetuwa

To: "Garry, Robert F" < refgarry@tulane.edu >, "John SSchieffelin"

<jschieff@tulane.edu>, "Luis
Branco" <lbranco08@gmail.com>, "Lina Moses"

<<u>linammoses@gmail.com</u>>, "Cross, Robert W." <<u>rwcross@utmb.edu</u>>, "Momoh

Gbetuwa" < momohgbetuwa@yahoo.com augstgoba@yahoo.com>

Date: Tuesday, November 25, 2014, 5:20 PM

Dear All,

Please find attached a letter from the Head of the VHFs Lab,

Mr.

Gbatuwa will give vivid explaining pertaining this letter.

Best regards

__

Simbirie Jalloh

Program Coordinator

Tulane/Lassa Fever Research Program -S/Leone

+232 33 491338/+232 76 350527

Date: 8/24/2014 8:36:24 PM From: "Cross, Robert W."

To: "rfgarry@tulane.edu" rfgarry@tulane.edu, "Luis Branco" lbranco08@gmail.com, "Lina Moses" linammoses@gmail.com,

"lmoses2@tulane.edu" lmoses2@tulane.edu, "pardis@broadinstitute.org" pardis@broadinstitute.org, "erica@scripps.edu" erica@scripps.edu,

"Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: Fwd: VHFC Crowd Sourcing EBOV/LASV hospital support

FYI, Vince is going to advertise the fund raising site next Sunday on TWIV.

Bob

Sent from mobile

Begin forwarded message:

From: Vincent Racaniello < vrr1@columbia.edu>

Date: August 24, 2014 at 20:21:29 CDT

To: "Cross, Robert W." <rwcross@utmb.edu>

Subject: Re: VHFC Crowd Sourcing EBOV/LASV hospital

support

Hi Bob,

We're recording TWiV #300 this Tuesday and we'll be sure to read this letter to drum up support for VHFC.

Vincent

Vincent Racaniello, PhD

<u>twiv.tv</u> | <u>virology.ws</u> | <u>twitter.com/profvrr</u>

'Trust science, not scientists'

MicrobeTV - Exciting with Science

On Sun, Aug 24, 2014 at 3:30 PM, Cross, Robert W.

<rwcross@utmb.edu> wrote:

Hi Vincent,

I hope you don't mind my writing. In light of your recent coverage on the current west African EBOV outbreak, I wanted to bring to your attention a current issue one of the major hospitals dealing with the outbreak is having in hopes that you might pass this information on to the listeners of your many online programs (TWIV, TWIP, ect...). The Kenema Government Hospital in Sierra Leone has been an epicenter for field work and treatment of Lassa fever for well over 10 years. During much of this time, there has been much support from NIH and other US governmental entities to study the natural history and uncover potential routes for treatment for LASV and many other tropical viral infections. Unfortunately,

the group there has recently received news that their major funding support from NIH would not be renewed. As you know, the grant writing and review cycle can take time from the point of submission to the final funding decision. The highly collaborative group that submitted the support grant, Viral Hemorrhagic Fever Consortium (http://vhfc.org/) submitted the request for funds prior to now expanding EBOV outbreak. To date, this site has processed over 95% of the patients and samples from this outbreak, but despite this heroic effort the funding has still not been renewed.

In an effort to seek help from the global community through crowd sourcing the much needed funds, a tax-deductible donation website has been set up through colleagues at the Scripps Institute. Persons interested in donating to support this program can access this site through the VHFC website here http://vhfc.org/media/news/help-support-our-program-kenema.

I'm unsure if anyone else from the program has contacted you on this, but this is merely an effort to hedge our bets and get the word out for a cause that any virologist would be proud to support.

Many thanks for your consideration in helping to spread the word.

Kindest regards,

Bob Cross

Robert W. Cross, Ph.D., MP.H.

Galveston National Laboratory

Rm. 5.324

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825

0:409-266-6594

rwcross@utmb.edu

Date: 10/27/2014 12:38:22 PM From: "Cross, Robert W."

To: "Augustine Goba (augstgoba@yahoo.com)" augstgoba@yahoo.com, "Mambu Momoh (mambumomoh@gmail.com)" mambumomoh@gmail.com

Cc: "lbranco@zalgenlabs.com" lbranco@zalgenlabs.com,
"rfgarry@tulane.edu" rfgarry@tulane.edu, "Jessica Grove
(j.n.grove@gmail.com)" j.n.grove@gmail.com, "Kristian Andersen
(kga1978@gmail.com)" kga1978@gmail.com, "Schieffelin, John S
(jschieff@tulane.edu)" jschieff@tulane.edu

Subject: Kenema Biosafety SOP Attachment: image001.png;

Hi Augustine or Mambu,

Kristian mentioned you and he worked out a biosafety SOP for the Kenema Lab and that it might be on the CPU in the lab.

When you have a moment, can you arrange to email me a copy of that document.

Many thanks!

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu



Working together to work wonders."



Date: 11/16/2014 8:26:04 AM From: "Cross, Robert W."

To: "Bente, Dennis A." dabente@UTMB.EDU

Subject: LRP LOR

Hey man,

Very productive times here in Kenema, comparatively quiet in regard to the outbreak...but not complaining.

I'm writing to let you know I'm resubmitting the NIH LRP grant again this year so I'll need to get another LOR from you. I'll draft it for you if needed...Just wanted to let you know before that email comes to you.

Talk with you soon!

Bob

Date: 3/25/2014 7:09:32 AM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Cc: "Mire, Chad" chmire@UTMB.EDU

Subject: Re: Call with Corrie

You got it.

Sent from mobile

On Mar 25, 2014, at 7:08, "Geisbert, Thomas W." < <u>twgeisbe@UTMB.EDU</u>> wrote:

OK. Let me know when we have an idea. We are going to have to separate out on our end and trying to keep this from being a nightmare for Joan regarding inventory.

Tom

From: Cross, Robert W.

Sent: Tuesday, March 25, 2014 7:07 AM

To: Geisbert, Thomas W.

Cc: Mire, Chad

Subject: Re: Call with Corrie

Hard to tell, that's why we are having to put pressure on Augustine, their lab director, to complete the inventory. I'm not sure what his reasons for dragging his feet are since the hospital director, khan, as well as Bob Garry are aware of the impending shipment. Africa time is my thought.

Bob

Sent from mobile

On Mar 25, 2014, at 6:59, "Geisbert, Thomas W." <<u>twgeisbe@UTMB.EDU</u>> wrote:

Now that we are going SA permit as well do we know how many LASV PCR positive samples are in the large shipment?

Tom

From: Cross, Robert W.

Sent: Tuesday, March 25, 2014 6:56 AM

To: Mire, Chad; lmoses2@tulane.edu; Lina Moses

Cc: Geisbert, Thomas W. **Subject:** Fwd: Call with Corrie

FYI

Sent from mobile

Begin forwarded message:

From: "Moses, Lina

M" < lmoses2@tulane.edu>

Date: March 25, 2014 at 2:35:41 CDT

To: "Cross, Robert

W." <rwcross@UTMB.EDU>, "Ntiforo,

Corrie" <contifor@UTMB.EDU

linammoses@gmail.com" linammoses@gmail.com>

Cc: "Geisbert, Thomas

W." < twgeisbe@UTMB.EDU > Subject: RE: Call with Corrie

Bob, sounds like a good plan. When I get back to Kenema tomorrow, I will lean on Augustine and recruit Dr. Khan to put some muscle in as well. He wants these samples out as soon as possible.

Corrie, here is the information you requested:

- Entity Name: Kenema Government Hospital Lassa Fever Laboratory
- Complete Address: Combema Road, Kenema, Sierra Leone
- Facility Director: Augustine Goba
- Facility Director Telephone #232 76 757 859
- Facility Director Fax # (if you have one): None
- Facility Director email address: augstgoba@yahoo.com

I accidentally deleted Chad Mire from this email, but can't pull up his email with the slow internet. Can you please forward? Thanks.

Lina

From: Cross, Robert W. < <u>rwcross@UTMB.EDU</u>>

Sent: Monday, March 24, 2014 8:56 PM

To: Ntiforo, Corrie; Moses, Lina M;

linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad

Subject: RE: Call with Corrie

Hey Lina:

A couple more small, but important, points to add to Corrie's request below.

After some discussion on this end, it appears the easiest and most logical way to do this will be for us to submit a Form 2 (SA) permit request. To hedge our bets for future work, we'll also be submitting for an ongoing permit for diagnostics (for relevant VHFs) that will carry us through the year and help with subsequent, non-confirmed samples. Once you provide the info below Corrie will submit this week.

For now, the goal is still currently to combine the shipment of PCR positive LASV samples and the more recent suspect samples using the Form 2 permit as it appears we'll have the best and fastest success rate with this. This being said, in addition to the information below, we will still need to get the final inventory with volume estimates before we can pack the box for shipment. Maybe an idea to apply a little gentle pressure to Augustine to complete this for us. It will be important that these samples do not have relevant health ID information (ie we have to be blinded) on the tubes outside of unique identifiers coded by your side. Otherwise we will need IRB approvals, which to my knowledge, we specifically do not have for these types of samples. Finally, it is advised that we try to keep the total volume for the shipment under 50mls total so that we will not be restricted to "cargo" only flights, having options for puddle jumpers might not be a bad thing so these samples don't end up sitting waiting on the next flight in, which as we know could be up to an additional week depending on timing. So if we have to break up shipments, I don't think this would necessarily be a bad thing. This would also help to ensure that if anything went wrong with the shipment, we wouldn't lose "everything".

I understand there are some internal approvals necessary with the Ministry Ethics committee, so getting us the info below ASAP will help to get the process started on our end so that once your letter is in hand we can (hopefully) already have the majority of the permit process complete on this end and hopefully get these samples on their way.

Once every T is crossed and I is dotted, we can provide you the UTMB World Courier account information, and you can arrange shipment out of

Freetown at your earliest convenience. Let us know if any of these last two notes are unclear and we will do our best to make sure we clarify everything properly to make sure we are all on the same page and doing this all by the book.

Talk with you soon,

Bob C.

From: Ntiforo, Corrie

Sent: Monday, March 24, 2014 8:13 PM **To:** Cross, Robert W.; Moses, Lina M;

linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad

Subject: RE: Call with Corrie

In order to get the ball rolling on the CDC form 2 permit, we will need the following senders information:

- Entity Name
- Complete Address
- Facility Director
- Facility Director Telephone #
- Facility Director Fax # (if you have one)
- Facility Director email address

Generally it takes 24-48 hrs to receive approval, however, we will make a call once we submit the form 2 to speed things along.

Corrie

From: Cross, Robert W.

Sent: Monday, March 24, 2014 3:03 PM **To:** Moses, Lina M; <u>linammoses@gmail.com</u> **Cc:** Geisbert, Thomas W.; Mire, Chad; Ntiforo,

Corrie

Subject: RE: Call with Corrie

No problem, I'll send you a list of what we will need from you information-wise for us to get the necessary permits and enable shipment shortly. If you can get any material from this additional case added, that would be ideal.

Be careful out there!

Bob

From: Moses, Lina M [mailto:lmoses2@tulane.edu]

Sent: Monday, March 24, 2014 2:50 PM **To:** Cross, Robert W.; linammoses@gmail.com

Subject: RE: Call with Corrie

Hey. Sorry in the middle of no where trying to track down the ebola case. We found it!!! Heading to the village tomorrow.

I have 1 100ul cryotube from each of the two guinea samples. Nadia (Metabiota) testing them by PCR for marburg and Ebola zaire and they were negative, but her regents have had crappy storage. I have to get ethics approval to send these samples and am working on writing up that letter now.

You can call now or anything in the next couple of hours if you need.

Lina

From: Cross, Robert W. <rwcross@UTMB.EDU>

Sent: Sunday, March 23, 2014 4:45 PM **To:** linammoses@gmail.com; Moses, Lina M

Subject: Call with Corrie

Hey there,

We will try to call you again sometime between 11-1 central US; 4-6pm Salone time.

Will that work for you?

Bob

Date: 8/8/2014 3:14:46 PM From: "Cross, Robert W."

To: "Ramirez, Donna R." d1ramire@UTMB.EDU Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: RE: CNN Contact....FW: Ebola and the medical community

Attachment: image002.png;image003.png;image004.png;

Hey Tom,

Just wanted to give you an update, I just spoke with Donna in person and have permission to proceed.



Thanks again for allowing me to do this!

Bob

From: Ramirez, Donna R.

Sent: Friday, August 08, 2014 1:34 PM

To: Cross, Robert W. **Cc:** Geisbert, Thomas W.

Subject: Re: CNN Contact....FW: Ebola and the medical community

Hi Bob,

Thanks for the heads up! Please hold off on speaking to Peter for the moment, as I confer with others in Media Relations. I will get back with you shortly!

Many thanks,

Donna

Donna Ramirez, PhD, CRA

Science Writer, Media Relations Marketing & Communications

301 University Blvd. Galveston, TX 77555-0144 3.512A Rebecca Sealy Building O 409.772.8791 C 607.760.9945 F 409.747.8885 E donna.ramirez@utmb.edu W www.utmb.edu/newsroom



From: <Cross>, "Robert W." <rwcross@UTMB.EDU>

Date: Friday, August 8, 2014 at 1:28 PM

To: Donna Ramirez < d1ramire@utmb.edu >
Cc: Thomas Geisbert < twgeisbe@UTMB.EDU >

Subject: FW: CNN Contact....FW: Ebola and the medical community

Hi Donna,

I'm a post doc in Dr. Thomas Geisbert's laboratory and I've recently been contacted by a friend of mine who is a producer at CNN. He is interested in some off record consultation on the current outbreak and its potential impact of the current ebola outbreak on the immediate scientific community working in filovirus/emerging viruses. Importantly, this will not be for anything that will be on record, more so to help him with story development along these lines (ie subject matter, points of contact for interviews, ect...). This is becoming a hot issue with the many losses and sacrifices being made by those involved in the outbreak on multiple levels (deaths of colleagues, loss of major support funding, the many hurdles involved with getting therapies into approved for use status, ect...)

he complete email stream and original request

is below for your review.

Kindest regards,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology

University of Texas Medical Branch
301 University Boulevard
Mail Bouto: 10610

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825 O:409-266-6594 rwcross@utmb.edu



Working together to work wonders."

From: Geisbert, Thomas W.

Sent: Friday, August 08, 2014 8:28 AM

To: Cross, Robert W. **Cc:** Mire, Chad

Subject: RE: CNN Contact....FW: Ebola and the medical community

Tom

From: Cross, Robert W.

Sent: Thursday, August 07, 2014 5:59 PM

To: Geisbert, Thomas W.

Cc: Mire, Chad

Subject: CNN Contact....FW: Ebola and the medical community

Hey Tom,

A friend of mine's husband is a producer at CNN and has contacted me below. Judging from a phone conversation with her, I think it is for some off record consultation for story development about impacts of this outbreak on folks in our immediate community (i.e. the scientific community actually working in the filovirus/emerging virus arena). Likely giving topic leads and points of contact on people to approach for interviews (you obviously would be a POC).

Thanks for considering it,

Bob

From: Kaplan, Peter [mailto:Peter.Kaplan@turner.com]

Sent: Thursday, August 07, 2014 5:03 PM

To: Cross, Robert W.

Subject: Ebola and the medical community

Hi Bob,

Brandy threw me your email, and I was curious to talk to someone in the medical community about the Ebola outbreak.

If you want to exchange a few emails on this, please let me know. This isn't for reporting or anything, more just curiosity on my part. Thanks!

Peter Kaplan

CNN | Producer | 404.825.0308 | peter.kaplan@turner.com

Date: 10/15/2014 2:34:56 PM From: "Cross, Robert W."

To: "'Matt Boisen'" mboisen24@gmail.com, "'Erica Ollmann Saphire'"

erica@scripps.edu

Cc: "'Molly Millett'" molly.marie.millett@gmail.com, "'Luis Branco - ZalgenLabs. com'" lbranco@zalgenlabs.com, "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "'Russell Wilson'" rbw@autoimmune.com, "'Garry, Robert F'" rfgarry@tulane.edu, "'Doug Simpson'" dsimpson324@yahoo.com Subject: RE: Ebola RDT - CONFERENCE CALL - 1 pm Mountain - 2 pm

Central - PLEASE CONFIRM - NUMBERS INCLUDED

Attachment: image001.png;

Matt,

Let me know as soon as you've gathered the materials to be tested and are ready to ship. Please include preferred testing parameters and documentation needs.

Also, please send enough strips for testing other species of EBOV (Zaire-West Africa, Zaire-Mayinga, Bundi, Sudan, Reston (?), and MARV) as well as LASV (as a control) and if possible enough for repeats should we need to rerun anything. If possible, include a manifest so I'll know what's to be expected in the shipment.

Best,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu



Working together to work wonders."

From: Matt Boisen [mailto:mboisen24@gmail.com] **Sent:** Wednesday, October 15, 2014 11:44 AM

To: Erica Ollmann Saphire

Cc: Cross, Robert W.; Molly Millett; Luis Branco - ZalgenLabs. com; Geisbert, Thomas W.;

Russell Wilson; Garry, Robert F; Doug Simpson

Subject: Re: Ebola RDT - CONFERENCE CALL - 1 pm Mountain - 2 pm Central - PLEASE

CONFIRM - NUMBERS INCLUDED

Please mention how helpful it would be if they could at least accelerate the funding we've already been awarded ie yrs 4&5.

On Oct 15, 2014 10:41 AM, "Erica Ollmann Saphire" < erica@scripps.edu > wrote: I can't make a call today, but please fill me in by email if you need something from me.

I'll be at DARPA and the white hosue science office next week and will mention how badly we need rapid diagnostics and I know a good one. About how much would you expect they woud cost?

Erica Ollmann Saphire, Ph.D.
Professor,
Dept. of Immunology & Microbial Science
Co-Director,
Global Virus Network Center of Excellence

The Scripps Research Institute 10550 North Torrey Pines Road, IMM-21 La Jolla, CA 92037

Tel: (858)784-8602 erica@scripps.edu

On Oct 15, 2014, at 9:33 AM, Garry, Robert F wrote:

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227

From: "mboisen24@gmail.com" <mboisen24@gmail.com>

Date: Wednesday, October 15, 2014 9:48 AM **To:** Tom Geisbert <twgeisbe@utmb.edu>

Cc: "Luis Branco - ZalgenLabs. com" < lbranco@zalgenlabs.com

molly.marie.millett@gmail.com>, "Cross, Robert W." <rwcross@utmb.edu>, Erica Ollmann Saphire <<u>erica@scripps.edu</u>>, Russell Wilson <<u>rbw@autoimmune.com</u>>, Robert Garry

<rfgarry@tulane.edu>, Doug Simpson <dsimpson324@yahoo.com>

Subject: RE: Ebola RDT

Yes its at the bottom of my signature but I'll send it out too.
On Oct 15, 2014 9:45 AM, "Geisbert, Thomas W." <twgeisbe@utmb.edu> wrote:

How about 1 pm Mountain so 2 pm Central? Is there a call in number that can be set up?

From: Matt Boisen [mailto:mboisen24@gmail.com]
Sent: Wednesday, October 15, 2014 7:45 AM

To: Geisbert, Thomas W.

Cc: Garry, Robert F; Cross, Robert W.; Russell Wilson; Luis Branco - ZalgenLabs.com; Doug

Simpson; Erica Ollmann Saphire; Molly Millett

Subject: Re: Ebola RDT

Hi Tom.

This afternoon would be good sometime between 1pm-3pm MST. I've been compiling data from Augustine in Kenema into a powerpoint summary and will forward to you later.

Currently, Corgenix is beginning to prepare Pilot Lot materials and gathering momentum to the production of scaled-up LFI & ELISA kits (actually we start full scale ELISA plate coatings this morning). We have not received the final template for EUA required testing from the FDA but as Bob mentioned it will most certainly include viral pfu/mL cut-off and cross-reactive/nearest neighbor testing.

Sorry I have such a narrow window but I have two appointments today and travel to NOLA tomorrow. If your available I will send out an invite to everyone.

Matt

On Wed, Oct 15, 2014 at 6:16 AM, Geisbert, Thomas W. <twgeisbe@utmb.edu> wrote:

Bob,

Yes, we can help. It may be easier to set up a telecom to discuss. Is there a good time this afternoon to do this?

Tom

From: Garry, Robert F [mailto:rfgarry@tulane.edu]

Sent: Tuesday, October 14, 2014 6:02 PM To: Geisbert, Thomas W.; Cross, Robert W.

Cc: Russell Wilson; Luis Branco - ZalgenLabs.com; mboisen24@gmail.com; Doug

Simpson; Erica Ollmann Saphire

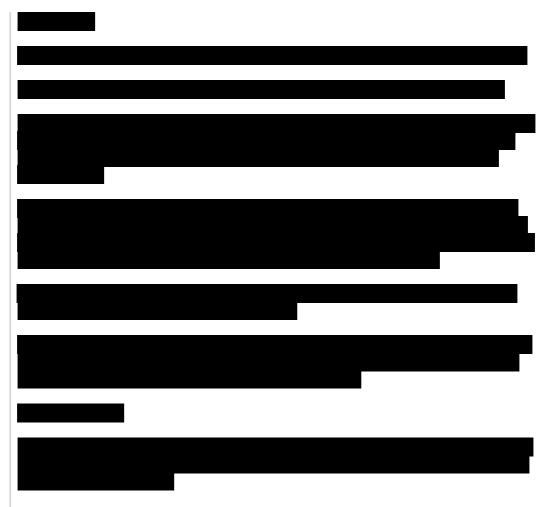
Subject: Ebola RDT

552.111 throughout

Hi Tom and Bob,

I just wanted to update you on the progress with the field testing of the Ebola RDT.





Matt might have additional points, but I thought that it was important to get this conversation started asap.

This is real important – we think a game-changer. Let us know if you have any questions...

Bob

Robert F. Garry, PhD
Professor, Department of Microbiology and Immunology
Assistant Dean, Graduate Program in Biomedical Sciences
Tulane University School of Medicine, SL-38
1430 Tulane Avenue, JBJ568
New Orleans, LA 70118

504-988-2027 phone 504-905-5635 cell 504-988-1994 fax 504-988-3818 lab rfgarry@tulane.edu

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA

Phone: <u>303-775-7752</u> mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227 Date: 10/14/2014 6:07:48 PM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject : RE: Ebola RDT

My schedule is completely open for this.

Mainly working on writing and some intermittent in vitro stuff and figuring out titers for hamster passage experiments...all easily rearrangable to accommodate.

Bob

From: Garry, Robert F [mailto:rfgarry@tulane.edu]

Sent: Tuesday, October 14, 2014 6:02 PM **To:** Geisbert, Thomas W.; Cross, Robert W.

Cc: Russell Wilson; Luis Branco - ZalgenLabs.com; mboisen24@gmail.com; Doug Simpson;

Erica Ollmann Saphire **Subject:** Ebola RDT

552.111 throughout

Hi Tom and Bob,

I just wanted to update you on the progress with the field testing of the Ebola RDT.



Matt might have additional points, but I thought that it was important to get this conversation started asap.

This is real important – we think a game-changer. Let us know if you have any questions...

Bob

Robert F. Garry, PhD
Professor, Department of Microbiology and Immunology
Assistant Dean, Graduate Program in Biomedical Sciences
Tulane University School of Medicine, SL-38
1430 Tulane Avenue, JBJ568
New Orleans, LA 70118

504-988-2027 phone 504-905-5635 cell 504-988-1994 fax 504-988-3818 lab rfgarry@tulane.edu Date: 10/26/2014 11:49:19 AM From: "Cross, Robert W."

To: "Matt Boisen" mboisen24@gmail.com, "Garry, Robert F"

rfgarry@tulane.edu

Cc: "Matt @ CGX" mboisen@corgenix.com, "Russell Wilson" rbw@autoimmune.com, "Doug Simpson" DSimpson@corgenix.com, "Peter Kulakosky" pck@autoimmune.com, "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com, "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "Molly Millett" molly.marie.millett@gmail.com, "Schieffelin, John S" ischieff@tulane.edu

Subject: RE: Ebola Zair GP antibody

I will call in to address any questions you might have for me on running the assay.

552.111 throughout

From: Matt Boisen [mailto:mboisen24@gmail.com]

Sent: Sunday, October 26, 2014 11:47 AM

To: Garry, Robert F

Cc: Cross, Robert W.; Matt @ CGX; Russell Wilson; Doug Simpson; Peter Kulakosky; Luis

Branco - ZalgenLabs.com; Geisbert, Thomas W.; Molly Millett; Schieffelin, John S

Subject: Re: Ebola Zair GP antibody

I'll be on the Conf Line in 15 mins. I have some feedback from Mambu about performance in Kenema.

On Sun, Oct 26, 2014 at 10:33 AM, Garry, Robert F < <u>rfgarry@tulane.edu</u>> wrote: Either or both fine with me.



From: "mboisen24@gmail.com" <mboisen24@gmail.com>

Date: Sunday, October 26, 2014 11:20 AM **To:** Robert Garry <rfgarry@tulane.edu>

Cc: Robert Cross < rwcross@utmb.edu>, "Matt @ CGX" < mboisen@corgenix.com>, Russell Wilson < rbw@autoimmune.com>, Doug Simpson < DSimpson@corgenix.com>, Peter

Kulakosky <<u>pck@autoimmune.com</u>>, "Luis Branco - ZalgenLabs.com" <<u>lbranco@zalgenlabs.com</u>>, Tom Geisbert <<u>twgeisbe@utmb.edu</u>>, Molly Millett <<u>molly.marie.millett@gmail.com</u>>, "Schieffelin, John S" <<u>jschieff@tulane.edu</u>>

Subject: Re: Ebola Zair GP antibody

I'm happy to host a call at 11am MST or Noon CST if there is a quorum otherwise Doug mentioned need to have a call tomorrow to discuss Gates Foundation proposal.

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227

On Sun, Oct 26, 2014 at 10:06 AM, Matt Boisen <mboisen24@gmail.com> wrote:

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On Sun, Oct 26, 2014 at 9:59 AM, Matt Boisen mboisen24@gmail.com wrote:

Not sure how much that would help in the field

On Sun, Oct 26, 2014 at 9:55 AM, Garry, Robert F <rfgarry@tulane.edu> wrote:

From: "mboisen24@gmail.com" <mboisen24@gmail.com>

Date: Sunday, October 26, 2014 10:48 AM **To:** Robert Garry <rfgarry@tulane.edu>

Cc: Robert Cross rwcross@utmb.edu, "Matt @ CGX" mboisen@corgenix.com, Russell Wilson rbw@autoimmune.com, Doug Simpson DSimpson@corgenix.com, Peter Kulakosky pck@autoimmune.com, "Luis Branco -

ZalgenLabs.com" < lbranco@zalgenlabs.com >, Tom Geisbert < twgeisbe@utmb.edu >

Subject: Re: Ebola Zair GP antibody

Conferencing Center
Dial-in:1-877-805-0965
Passcode: 5769227

Hi All,



Regards, Matt

On Sun, Oct 26, 2014 at 9:25 AM, Matt Boisen mboisen24@gmail.com wrote:

I was going to email out my observations. If we want to have a call after that 10am MST that's fine with me.

On Oct 26, 2014 9:09 AM, "Garry, Robert F" <rfgarry@tulane.edu> wrote: Good for me.

From: "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>

Date: Sunday, October 26, 2014 10:07 AM

To: "mboisen24@gmail.com" <mboisen24@gmail.com>

Cc: Peter Kulakosky <pck@autoimmune.com>, Russell Wilson <rbw@autoimmune.com>, "Matt @ CGX" <mboisen@corgenix.com>, Robert Garry <rfgarry@tulane.edu>, Robert

Cross < rwcross@utmb.edu >, Tom Geisbert < twgeisbe@utmb.edu

DSimpson@corgenix.com>

Subject: Re: Ebola Zair GP antibody

What time do you want to have the call? Going to lab now, running flow. I can skype in

On Fri, Oct 24, 2014 at 10:06 PM, Matt Boisen <mboisen24@gmail.com> wrote:

Sounds good. We need to coordinate manufacturing expectations. We also need to have a call to review Bob Cross' testing "the good, bad, and ugly". I'm getting down to just a few days before traveling to do a call we should have a call before football on Sunday.

On Oct 24, 2014 5:35 PM, "Peter Kulakosky" <pck@autoimmune.com> wrote: Just a quick update. Micah ran a few ml of goat sera today from pooled sera, both goats bleeds 1-3. (It will be a couple of weeks until we get the final bleed in.) He estimates, from the peak sizes, that he got about 90 mg.

Dr. Peter Kulakosky **Laboratory Director** Autoimmune Technologies, LLC

Room 2205 Research and Education Bldg.

200 Henry Clay Avenue

New Orleans LA 70118

504-896-2717 Office

504-896-2790 Laboratory

504-529-9944 AiT office

http://www.autoimmune.com/

From: "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>

Date: Thursday, October 23, 2014 at 7:54 PM **To:** Peter Kulakosky <pck@autoimmune.com>

Cc: Matt Boisen <mboisen24@gmail.com>, Matt Boisen <mboisen@corgenix.com>

Subject: Re: Ebola Zair GP antibody

I would say that a worse case scenario is a late delivery via Fedex on the 10th. I really don't want to be chasing the Fedex truck around town on my way to the airport. Been there,. done that, didn't like it... unless it contains Doug's obligatory booze contribution to the working expedition.

On Thu, Oct 23, 2014 at 5:55 PM, Luis Branco - ZalgenLabs.com < lbranco@zalgenlabs.com> wrote:

November 11th out of Nola

On Oct 23, 2014 5:18 PM, "Peter Kulakosky" <pck@autoimmune.com> wrote:

Micah is making the column today. Russell told me when you guys were leaving, but I did not put it on my calendar. What day is D-Day?

--

Dr. Peter Kulakosky

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From: Matt Boisen < mboisen24@gmail.com>
Date: Wednesday, October 22, 2014 at 9:17 PM

To: "Luis Branco - ZalgenLabs. com" < lbranco@zalgenlabs.com>

Cc: "Matt @ CGX" <mboisen@corgenix.com>, Peter Kulakosky <pck@autoimmune.com>

Subject: Re: Ebola Zair GP antibody

We'd need at least 3mg.

On Oct 22, 2014 7:25 PM, "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com> wrote: I don't any per se.

Matt is going to make a small batch of strips with goat/goat anti-GP to test on interesting EVD samples.

Matt? Couple of mgs?

On Wed, Oct 22, 2014 at 9:03 PM, Peter Kulakosky < pck@autoimmune.com> wrote: Hi Guys,

Russell mentioned that you'd like some Ebola, Zaire GP (goat) antibody to take to Kenema next month. We have enough tagged GP to make a small affinity column. How much Ig do you think you can use?

__

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Matt Boisen

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Phone: <u>303-775-7752</u> mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

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Dial-in:<u>1-877-805-0965</u> Passcode: 5769227

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Conferencing Center

Dial-in:1-877-805-0965 Passcode: 5769227 Date: 12/11/2014 7:36:11 PM From: "Cross, Robert W."

To: "'Rob Powell'" rob@primerdesign.co.uk Subject: RE: EBOV 2014 qPCR kits inquiry

Attachment: image001.gif;image002.png;image003.png;image004.jpg;

Hi Rob,

Let me know if you need further info.

Best,

Bob

From: Rob Powell [mailto:rob@primerdesign.co.uk] **Sent:** Thursday, December 11, 2014 5:04 AM

To: Cross, Robert W.

Subject: RE: EBOV 2014 qPCR kits inquiry

Dear Robert,

Hi. We supplied you two detecting primer and probe sets. These were EBOV_2014 and the EBOV_KGH. Can you pls tell us which kit was used for the supplied data?

Thanks, Rob

Rob Powell PhD

Director of Research and Development Primerdesign Ltd rob@primerdesign.co.uk www.primerdesign.co.uk





From: Cross, Robert W. [mailto:rwcross@UTMB.EDU]

Sent: 08 December 2014 14:26

To: Luis Branco - ZalgenLabs.com; Rob Powell **Subject:** RE: EBOV 2014 qPCR kits inquiry

I'm in and out of meetings throughout much of the morning, then have procedures in the BSL4 this afternoon.

Appears Luis addressed the immediate requests for info. Email is easiest for me today, but tomorrow can do a call if still needed. Please provide a time. I am Central U.S. time.

Best,

Bob

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com]

Sent: Monday, December 08, 2014 7:12 AM

To: Rob Powell Cc: Cross, Robert W.

Subject: Re: EBOV 2014 qPCR kits inquiry

Rob,

You can call me at U.S. 504-444-7047 anytime.

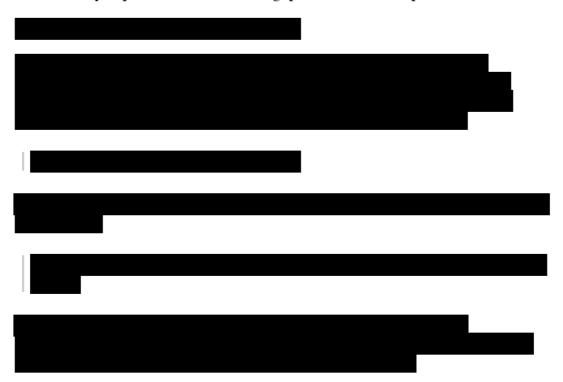
Answers to your questions are below:

On Mon, Dec 8, 2014 at 6:38 AM, Rob Powell < rob@primerdesign.co.uk > wrote: Dear Luis

The WHO are very keen to see the study data so I'm putting it in a format for submission

I have some questions for Robert and would appreciate a quick teleconf today if possible?

If not could you pls answer the following questions for this report



4). Where were you based.

Kenema Government Hospital, Kenema, Sierra Leone

Lastly. The WHO are asking for a statement that you have no conflict of interest or financial interest in producing this data.

What format should this be in? A formal letter from me, Zalgen labs? Please let me know and I'll draft it.

The WHO are seriously considering taking the kit for further testing internally so I must again express my gratitude to your consortium. I have deep roots in Africa and we long to make a contribution.

We feel the same, hence our 10-year and counting commitment toward understanding and hopefully eventually controlling these VHFs.

Best,

Luis

Best regards Rob

100

Best regards

Rob Powell Phd Director of Research and Development rob@primerdesign.co.uk www.primerdesign.co.uk

On 7 Dec 2014, at 16:35, "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com> wrote:

Hi, Rob



I hope all this helps you at your meeting tomorrow. Please let us know what else we can do to help your assay gain recognition by WHO. After the recent WHO mandate that new EBOV diagnostic must be compared against the Altona EBOV qPCR kit, we have tried to procure such kits in order to satisfy such requirements. Eventually, the VHFC would like to obtain WHO's seal of approval. It has been a nightmare to procure the Altona kits. We are still unsure as to the actual cause of such obstacles. It would be a positive step if the WHO added additional qPCR platforms to the list of comparative PCRs, in order to provide organizations such as VHFC with better options.

Dr. Cross's assessment:

"The CDC assay was obviously very straight forward standard QRTPCR.



Best. Luis

<Nov2014 Sierra Leone CT Comparisons Between Platforms..xlsx>

Luis M Branco, Ph.D. Co-Founder, Zalgen Labs, LLC 20271 Goldenrod Lane, Suite 2083 Germantown, MD 20876 504-444-7047 (cell) 504-252-0889 (main) lbranco@zalgenlabs.com

Date: 12/5/2014 7:30:02 PM From: "Cross, Robert W."

To: "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com

Subject: Re: EBOV 2014 qPCR kits inquiry

Attachment: image003.png;image001.gif;image004.jpg;image002.png;

Planned to work on this weekend, will shoot for tomorrow....

Can do for expense report.

В

Sent from mobile

On Dec 5, 2014, at 19:28, Luis Branco - ZalgenLabs.com < lbranco@zalgenlabs.com > wrote:

Hey, Bob

Did we run a comparison between the 2 kits? If you have the templates I can look through them and assemble this table for the Primer Design folks.

Thanks,

Luis

p.s. can you send me your travel itemization form over the weekend or sometime on Monday a.m.? I'd like to submit it to TU on Monday

----- Forwarded message -----

From: **Rob Powell** <<u>rob@primerdesign.co.uk</u>>

Date: Fri, Dec 5, 2014 at 11:44 AM

Subject: RE: EBOV 2014 qPCR kits inquiry

To: "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>

Dear Luis,

Hi. We have a teleconference with the WHO on Monday morning and they are keen to discuss any new data that we have on the kit? The field data from your trip could be of great assistance in getting the kit recognised by the WHO. Even a simple summary would be helpful at this stage to keep the ball moving. Tabulated data compared to the CDC assay would be ideal if this is possible?

Let me know what is possible?

Best Regards

Rob

Rob Powell PhD

Director of Research and Development

Primerdesign Ltd

rob@primerdesign.co.uk

www.primerdesign.co.uk

<image001.gif> <image002.png> <image003.png>

<image004.jpg>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com]

Sent: 28 November 2014 15:15

To: Rob Powell

Subject: Re: EBOV 2014 qPCR kits inquiry

Hi, Rob

We are back in the U.S. and will be assembling the complete data set in the next couple of days. Your kits worked well, but I have to wait for one of my colleagues to process and send the qPCR data my way. We will share data with you when we have it all assembled.

Best,

Luis
On Fri, Nov 28, 2014 at 8:08 AM, Rob Powell < rob@primerdesign.co.uk > wrote:
Hi Luis,
I hope all is well with you and that your trip has been successful for your own technology? I know that your trip was 2-3 weeks so perhaps you are already back? The WHO have expressed interest in our kit but would like to see some data from a field based study. I'm wondering if you will soon be in a position to update us on the use of our kit in your study. Talk soon,
Rob
Rob Powell PhD
Director of Research and Development
Primerdesign Ltd
rob@primerdesign.co.uk
www.primerdesign.co.uk
<image001.gif> <image002.png> <image003.png></image003.png></image002.png></image001.gif>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com] **Sent:** 23 October 2014 13:49

To: Rob Powell

<image004.jpg>

Sorry, Rob
Missed that question. We are leaving from New Orleans, Louisiana, or November 11th. I will be in New Orleans on the 9th to help pack and setup logistics. I would probably feel comfortable testing the unit at least once while in the U.S., using perhaps the positive control in your kits. This should only require one day to figure out.
If the manufacturer agrees to this testing of their instrument please let us know how this matter should be handled, including the return of the unit, any legal hoops we have to jump through, etc.
Best,
Luis
On Thu, Oct 23, 2014 at 8:22 AM, Rob Powell < rob@primerdesign.co.uk > wrote:
Thanks Luis
That sounds very sensible on the extraction front. Can you confirm your deployment date and where and When the Eco would need?
Thanks
Rob

Subject: Re: EBOV 2014 qPCR kits inquiry

Rob Powell PhD

Director of Research and Development

Primerdesign Ltd

jim@primerdesign.co.uk

www.primerdesign.co.uk

<image001.gif> <image002.png> <image003.png>

<image004.jpg>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com]

Sent: 23 October 2014 13:19

To: Rob Powell

Subject: Re: EBOV 2014 qPCR kits inquiry

Hi, Rob

Thanks for making the inquiries on the Eco. We will gladly generate data on it and provide feedback. Many instruments are put to a real test when used in austere environments. We've seen it many times.

We have used Qiagen's viral RNA extraction kit for several years, to isolate LASV and now EBOV RNA. We will continue with this platform, as kits have been ordered and we will only be on the ground for 2 weeks. It's always a significant endeavor to train personnel on new techniques, and the current challenges are greater than usual.

btw, the order for the kits will come today, from Autoimmune Technologies, one of our consortium partners.

Best,

Luis

On Thu, Oct 23, 2014 at 4:20 AM, Rob Powell rob@primerdesign.co.uk> wrote:

Hi Luis,

I've made enquiries for you about the Eco. Also I didn't put extraction kits on your quote. Would a simple extraction kit based on magnetic beads be helpful. We have tested it on T7 EBOV run off RNA and the lysis buffer is known to completely deactivate influenza? I guess you have thought about these issues already in your work with Lassa Fever Virus?

Did you say you were deploying on the 11th of November?

Rob

Rob Powell PhD

Director of Research and Development

Primerdesign Ltd

jim@primerdesign.co.uk

www.primerdesign.co.uk

<image001.gif> <image002.png> <image003.png>

<image004.jpg>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com]

Sent: 22 October 2014 23:12

To: Rob Powell

Subject: Re: EBOV 2014 qPCR kits inquiry

Absolutely. What would be needed to have it returned? Decon, certify, On Oct 22, 2014 3:55 PM, "Rob Powell" < rob@primerdesign.co.uk> wrote: Yes that's no problem. But I might be able to get you a more modern machine on loan - the Eco. It's much easier to use and the manufacturer would be interested in the data so foc. Is that of interest? Best regards Rob Powell Phd Director of Research and Development rob@primerdesign.co.uk www.primerdesign.co.uk On 22 Oct 2014, at 20:06, "Luis Branco -ZalgenLabs.com" < lbranco@zalgenlabs.com> wrote: Hi, Rob Just to be sure, we can use your EBOV qPCR kits in a LightCycler 2.0 correct? That's the instrument we have in Kenema, Sierra Leone. Many thanks, Luis

p.s. order will be placed in the next day or so

On Wed, Oct 22, 2014 at 12:13 PM, Rob Powell <<u>rob@primerdesign.co.uk</u>> wrote:

Thanks for clarifying that

Rob

Rob Powell PhD

Director of Research and Development

Primerdesign Ltd

jim@primerdesign.co.uk

www.primerdesign.co.uk

<image001.gif> <image002.png> <image003.png>

<image004.jpg>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com] Sent: 22 October 2014 16:33

To: Rob Powell

Subject: Re: EBOV 2014 qPCR kits inquiry

Thanks, Rob

Great, I will follow up if they call. btw, our test is for use with whole blood at the moment.
Best,
Luis
On Wed, Oct 22, 2014 at 10:27 AM, Rob Powell cob@primerdesign.co.uk > wrote:
Dear Luis
The New York Times rung me yesterday as they are doing a piece on diagnostics so I gave them your name and company and advised that you talk to you about your saliva based test
I hope this is helpful and that they contacted you?
Rob
Rob Powell PhD
Director of Research and Development
Primerdesign Ltd
jim@primerdesign.co.uk
www.primerdesign.co.uk
<pre><image001.gif> <image002.png> <image003.png></image003.png></image002.png></image001.gif></pre>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com] Sent: 21 October 2014 15:53

To: Rob Powell

Subject: Re: EBOV 2014 qPCR kits inquiry

Rob,

Our test is less sensitive than PCR, as it is an antigen capture based assay. We detect VP40 or NP antigen.

So, you have primers and probes to detect NP and VP40 as well (or perhaps GP) target? What can you make available for this endeavor?

Luis

On Tue, Oct 21, 2014 at 9:45 AM, Rob Powell < rob@primerdesign.co.uk > wrote:

That sounds like a very exciting prospect Luis – presumably it is less sensitive because you need to wait for an antibody response before you can generate a positive test? But a great step forward.

What PCR equipment to have on site or are you taking machine(s) with you.

We have the Broad institute primers packaged which are global for all EBOV outbreak strains including historical ones and our 2014 specific kit. The CDC are using two primer sets to give a back up so hopefully you will have concordant results with our two kits which will add a lot of confidence to your findings.

Rob Powell PhD

Director of Research and Development

Primerdesign Ltd

jim@primerdesign.co.uk

www.primerdesign.co.uk

<image001.gif> <image002.png> <image003.png>

<image004.jpg>

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com] Sent: 21 October 2014 13:59

To: Rob Powell

Subject: EBOV 2014 qPCR kits inquiry

Hello Rob,

We just chatted via your website re: EBOV 2014 qPCR kits.

Please see <u>www.vhfc.org</u> for more information on who we are and what we do. I am co-founder of Zalgen Labs, along with Dr Robert Garry of Tulane University.

I was very glad to see that you have developed a qPCR specific to the current outbreak strain. We are leaving November 11th to test the vhfc's EBOV RDT in Sierra Leone. Given the conditions on the ground, and our near decade long experience with development and implementation of RDTs for Lassa fever in the region, we believe that rapid tests can be a game changer. Currently,

the turnaround for qPCR testing is 72 hours - due to resource limitations - which is unacceptable in terms of attempting to contain this outbreak. We are working with several international partners (Gates Foundation, UNICEF, CDC, etc...) to test, validate, and rapidly deploy these RDTs in the field. They will not be as sensitive as qPCR, due to the non-amplification immunochromatic platform we will use, but no equipment is required at all, and these tests can be run on the spot, and produce a valid result in 10 - 15 minutes.

We're thinking that if we can test about 500 - 1000 samples on this trip we should gather all the information we require to file for an FDA EUA.

We would like to continue using a qPCR confirmation method as much as possible, in order to further validate all the testing platforms (including IgM, IgG, Ag ELISA).

I hope we can generate a good bit of valid data. It would be great if both our platforms perform well. I'll touch base with our group and will get back to you soon with a number of kits that we will require at the moment. The order will likely come from Tulane University.

Thanks for your time and consideration,

Luis M Branco

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Luis M Branco, Ph.D.

Co-Founder, Zalgen Labs, LLC

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Luis M Branco, Ph.D. Co-Founder, Zalgen Labs, LLC 20271 Goldenrod Lane, Suite 2083 Germantown, MD 20876 504-444-7047 (cell) 504-252-0889 (main) lbranco@zalgenlabs.com





The genesig® q16

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Date: 10/9/2013 11:29:38 AM From: "Cross, Robert W." To: "Lina Moses" linammoses@gmail.com Subject: Re: EID NOLa Hantavirus Author Line Consent Form Attachment: image001.png;
Thanksunfortunately they didn't like it for whatever reason so we are resubmitting to JID in the near future
Stay tuned,
В
Sent from mobile
On Oct 9, 2013, at 11:27, "Lina Moses" < linammoses@gmail.com > wrote:
Hi. Sorry it took so bloody long to get this to you. The printer here is broken so I signed it electronically. I can figure something out if you really really need a hand-written signature.
drowning in work in Kenema
On Mon, Sep 23, 2013 at 9:51 PM, Cross, Robert W. < <u>rwcross@utmb.edu</u> > wrote:
Thanks Beth,
Great work! Agreed that the new version is more clear as to what we are looking at. We currently have the space for your methods section and will incorporate. If we get downgraded to a "letter" there may be issue, but we can cross that bridge when we get to it.
Regarding the consent form, the electronic version will suffice.
Almost there!
Bob

552.111 throughout

From: Fischer, Elizabeth (NIH/NIAID) [E]

[mailto:EFISCHER@niaid.nih.gov]

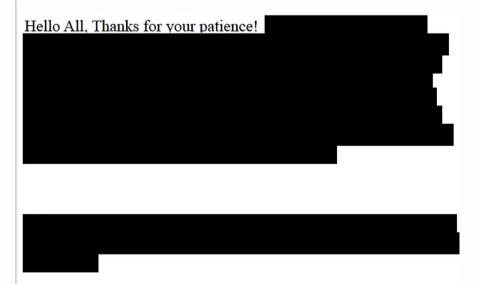
Sent: Monday, September 23, 2013 4:41 PM

To: Cross, Robert W.; anfree1005@yahoo.com; criegel@cityofno.com; Andrew J Bennett; Safronetz, David (NIH/NIAID) [F]; Feldmann, Heinrich (NIH/NIAID) [E]; afreema4@tulane.edu; criegel@nola.gov;

claudiariegal@usa.net; lmoses2@tulane.edu; Bausch, Daniel CIV; Thomas

Voss; linammoses@gmail.com

Subject: RE: EID NOLa Hantavirus Author Line Consent Form



I also attached an electronically signed copy of the consent. Let me know if you prefer the "ink" version.

Best regards, Beth

Transmission Electron Microscopy:



From: Cross, Robert W. [mailto:rwcross@UTMB.EDU]

Sent: Monday, September 23, 2013 2:36 PM

To: Fischer, Elizabeth (NIH/NIAID) [E]; anfree1005@yahoo.com; criegel@cityofno.com; Andrew J Bennett; Safronetz, David (NIH/NIAID) [F]; Feldmann, Heinrich (NIH/NIAID) [E]; afreema4@tulane.edu; criegel@nola.gov; claudiariegal@usa.net; lmoses2@tulane.edu; Bausch,

Daniel CIV; Thomas Voss; linammoses@gmail.com

Subject: RE: EID NOLa Hantavirus Author Line Consent Form

All,

I've sent a copy of the "to date" final version to Beth at NIAID. As soon as we've received these edits/additions, we will send out a "last call" email with the final draft for final review.

Thanks again everyone!

Bob

From: Cross, Robert W.

Sent: Monday, September 23, 2013 10:05 AM

To: anfree1005@yahoo.com; criegel@cityofno.com; Andrew J Bennett; safronetzd@niaid.nih.gov; Feldmann, Heinrich (NIH/NIAID) [E]; afreema4@tulane.edu; criegel@nola.gov; claudiariegal@usa.net; lmoses2@tulane.edu; Bausch, Daniel CIV; Thomas Voss; Fischer, Elizabeth

(NIH/NIAID) [E]; linammoses@gmail.com

Subject: EID NOLa Hantavirus Author Line Consent Form

Hi everyone,

We are hitting send on the submission today for this manuscript. As a formality, we will need to get a written consent from everyone on the author line per the EID submission guidelines. Since the journal did not supply one, I've drafted a consent form based on other high impact journals' forms. This should cover the bases with respect to everything we would need.

Though it will not be needed in order to submit, I would like to have record of everyone's written consent just in case there are any request down the line. At your earliest convenience, could you sign the attached document, scan, then email back to me. Since we are literally spread over the globe at this point, I'm sure it will be fine to print out and send to me signed individually. Trying to send out one form to collect all signatures would be a logistical nightmare. Though for those of you at the same institution, you are welcome to use one sheet for this if you would like to save some trees.

Please let me know if any questions or concerns,

Thanks again everyone! Almost there!!

Bob

Robert W. Cross, Ph.D., MP.H.

Post Doctoral Fellow: Geisbert Lab

Galveston National Laboratory

Rm. 5.324, L29030

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825

O:409-266-6594

rwcross@utmb.edu

<image001.png>

_

Lina M. Moses, PhD MSPH

Tulane University Lassa Fever Program 1430 Tulane Ave. SL-38 New Orleans, LA 70112 USA phone: +1 504 717 5344

www.vhfc.org

<Blank Consent Form EID OW Hantaviruses in NOLa-LMoses.pdf>

Date: 12/17/2014 10:39:19 AM From: "Cross, Robert W."

To: "NAIDOO, Dhamari" naidood@who.int, "BEJTULLAHU, Armand"

bejtullahua@who.int

Cc: "LeDuc, James W." jwleduc@UTMB.EDU, "Geisbert, Thomas W.

(twgeisbe@UTMB.EDU)" twgeisbe@UTMB.EDU

Subject : RE: EVD West Africa: Lab coordinator candidate

Attachment: image001.png;

Greetings Drs Naidoo and Bejtullahu,

I wanted to write to follow up on my potential deployment as a part of the ongoing WHO GOARN EBOV response in West Africa. There are inherent delays in processing requests of this nature due to increased stringency on qualifications for participation in this outbreak and it being near the holiday season here in the US, so I've already routed my institutional requests for permission to deploy here at UTMB. This request is still circulating through administrative channels but I am expecting a quick turnaround for approval. Especially considering this would be a rapid return to the region for me and the critical nature of the mission.

Two items that will likely surface soon are precise deployment dates and official assignment to deploy, if chosen as candidate. Could you tell me if there been a decision made on this latter point yet and if not, is there a timeframe that I should expect notification by?

If I am indeed going to deploy, it would be good to begin getting things in order to enable as smooth a process as possible.

Many thanks for your time and consideration,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-266-6904 rwcross@utmb.edu



Working together to work wonders."

552.111 throughout

From: Cross, Robert W.

Sent: Friday, December 12, 2014 9:53 AM

To: 'NAIDOO, Dhamari' **Cc:** BEJTULLAHU, Armand

Subject: RE: EVD West Africa: Lab coordinator candidate

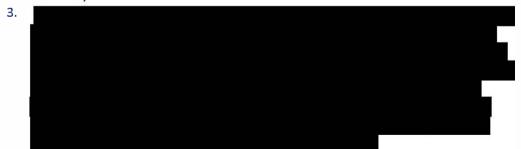
Dear Dr. Naidoo,

Pleasure to meet you, albeit digitally for now.

I understand the dynamic nature and critical importance for continuity of process in this situation having just returned from Sierra Leone myself. While there, it was apparent to me that there were many entities working toward a similar goal, yet with somewhat different approaches; which in and of itself can make progress difficult in an already challenging environment.

Regarding my recent mission to Sierra Leone. As my CV indicates, I had already had extensive experience in various parts of the country doing wildlife surveillance for high priority viruses, this coupled with my extensive containment experience with BSL3 and BSL4 agents qualified me to serve as a biosafety consultant for a diagnostic validation mission with Tulane University and private sector partners Corgenix Inc, and Zalgen Labs. The mission aims and accomplishments are listed below:

- 1. Upon arrival, we met with head officials at the Ministries of Health in Freetown to notify them of our impending mission and length of stay. This level of transparency has been maintained on both of my Sierra Leone missions.
- 2. My primary role in the mission was to assess the current biosafety practices at the Ministry of Health's Kenema Government Hospital (KGH) Lassa Fever laboratory then provide updated biosafety/biosecurity training for permanent personal as well as the research team I was traveling with. Then continual monitoring of day to day operations, states of health/well being of lab personnel, and provide additional reinforcement of biosafety and technical training where necessary.



4. As a representative of UTMB, another goal was to secure clinical samples likely to contain circulating strains of LASV and EBOV and arrange for shipping of these materials back to UTMB. This involved permitting and ethics approvals through US-CDC, US-Customs, and permissions from the Ministries of Health. These samples will be used in hopes to isolate viruses for use in validation of vaccines and therapeutics against these agents currently under development.

- 5. Finally, we collected and shipped back PBMCs from convalescent EBOV patients for the development of antibody based therapies for EBOV. My job was to provide a certificate of analysis that these samples were safe to ship as validated by PCR and antigen based assays.
- 6. All of these mission goals were completed in 1.5 weeks time.

I understand the importance and difficulty of choosing the right candidate for this deployment. Given the multitude of entities involved, it's clear that a heavy component here will be reliance on effective communication across channels. My experience with working with laboratory networks is limited to the US where I worked within the CDC-Laboratory Response Network (an array of state public health laboratories depended on for outbreak response) where we dealt with potential bioterrorism samples and/or clinical samples. I am confident in my ability as a scientist with firm laboratory expertise; however, despite my extensive training...my experience working on the scale immediately necessary for this type of deployment has never truly been put to the test.

Like anyone responding to this outbreak, this would also be a huge commitment on my part on multiple levels. If chosen, I would expect some level of briefing/training by WHO representatives to ensure that I have the tools necessary to meet the goals of the mission.

If you would like to set up a time for a call to speak with me in person, just let me know when a good time would be. If you would like some references to assess my abilities for this mission, please contact any of the following personnel:

Ksiazek, Thomas G., PhD. tgksiaze@UTMB.EDU: Director of Galveston National Laboratory BSL4 Laboratorie, UTMB

LeDuc, James W., PhD <u>jwleduc@UTMB.EDU</u>: Director of Galveston National Laboratory, UTMB

Geisbert, Thomas W, PhD. (twgeisbe@UTMB.EDU) Current Post-Doc Mentor, Professor, UTMB

Schieffelin, John S MD, MPH-TM (<u>jschieff@tulane.edu</u>); Clinical Director for Tulane/Kenema Government Hospital Lassa Fever Program

Lina Moses, PhD: <u>Imoses2@tulane.edu</u>; Field Ecology Director for Tulane/Kenema Government Hospital Lassa Fever Program

Daniel Bausch, MD, MPH-TM: Daniel.Bausch@med.navy.mil: Director of Emerging

Infections Program-NAMRU-6 Lima, Peru

Luis Branco, PhD: Ibranco@zalgenlabs.com: CEO Zalgen Laboratories

With kindest regards,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu



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From: NAIDOO, Dhamari [mailto:naidood@who.int]
Sent: Thursday, December 11, 2014 4:49 PM

To: Cross, Robert W. **Cc:** BEJTULLAHU, Armand

Subject: RE: EVD West Africa: Lab coordinator candidate

Dear Dr Cross

I am coordinating the lab response at WHO for the Ebola response and was passed on your CV by our GOARN colleagues

Could you please let me know what activities you were involved in during your time in Sierra Leone. Also, do you have much international experience with coordinating laboratories/networks and engaging with partners and Ministries of Health?

For the position national lab coordinator, it is essential that candidates fulfil these above mentioned criteria as well as having sound laboratory experience. As I am currently in the field I have begun to realise that experience with engaging partners and ensuring everyone aligns to the same workplan is critical for a coordinated response to this outbreak.

Regards, Dhamari

WHO EVD Response Team, Sierra Leone National Laboratory Coordinator naidood@who.int +232 79 7616 21

From: BEJTULLAHU, Armand Sent: 05 December 2014 17:14

To: FORMENTY, Pierre B.H.; NAIDOO, Dhamari

Cc: goarn

Subject: EVD West Africa: Lab coordinator candidate

Dear Pierre and Dhamari,

We have received CV of Dr Robert Cross from UTMB and believe that he will be a good candidate for Lab coordinator position. He has just returned from a mission in Sierra Leone and is willing to go to the field again.

He is most probably going to be available from mid-January for 5 weeks deployment.

Grateful if you could have a look at Robert's CV and let us know what do you think.

Many thanks and best regards,

Armand

Armand Bejtullahu Technical Officer

Global Outbreak Alert and Response Network Global Capacities, Alert and Response World Health Organization Avenue Appia 20 1211 Geneva 27, Switzerland

Tel. direct: +41 22 791 5544 E-mail: bejtullahua@who.int

Date: 12/23/2014 4:15:09 PM From: "Cross, Robert W."

To: "Matt Boisen" mboisen24@gmail.com

Cc: "Haislip, Allyson M" amh777@tulane.edu, "Garry, Robert F" rfgarry@tulane.edu, "Doug Simpson" DSimpson@corgenix.com, "Dan Simpson" DFSimpson@corgenix.com, "Kelly R Pitts"

KRPitts@corgenix.com, "Geisbert, Thomas W." twgeisbe@UTMB.EDU,

"lbranco@zalgenlabs.com" lbranco@zalgenlabs.com

Subject: Re: FDA Comment Regarding Nearest Neighbor Testing

Allyson-we are in same boat, closed till the 5th. Will send mailing address in subsequent email.

Sent from mobile

On Dec 23, 2014, at 16:54, Matt Boisen < mboisen24@gmail.com> wrote:

On that note, I will be shipping Coating and Block Diluent on the 29th and also need a good address. This is the last day of 2014 to ship from Corgenix. We have a full inventory of Lassa and Ebola Diagnostics available (both RDTs and ELISAs) so place any final requests. Note: The Ebola Ag ELISAs had a labeling SNAFU so those are special request only, until next year when it is resolved.

I will be bringing a full complement of Ebola and Lassa Diagnostics with me to Kenema on Jan 3rd as a belated Christmas present for Augustine & Mambu. Hopefully we don't max out their fridge space too badly.

Merry Christmas Everyone

On Tue, Dec 23, 2014 at 2:41 PM, Haislip, Allyson M <amh777@tulane.edu> wrote:

Hi Bob,

I want to phone in a order for this but need to know what is a good shipping address as for the Holidays. We will be closed from tomorrow till the 5th and I don't know if UTMB is the same. Please advise and I'll place the order.

Thanks, Allyson

From: <Garry>, Robert F <<u>rfgarry@tulane.edu</u>>
Date: Tuesday, December 23, 2014 3:03 PM

To: "Cross, Robert W." < rwcross@UTMB.EDU >, "Garry, Robert

F" <rfgarry@tulane.edu>, "Haislip, Allyson M" <amh777@tulane.edu>

Cc: Matt Boisen <mboisen24@gmail.com>, Doug Simpson

<DSimpson@corgenix.com>, Dan Simpson <DFSimpson@corgenix.com>,
Kelly R Pitts <KRPitts@corgenix.com>,
"Geisbert, Thomas
W." <twgeisbe@UTMB.EDU>,
"Ibranco@zalgenlabs.com" <lbranco@zalgenlabs.com>

Subject: Re: FDA Comment Regarding Nearest Neighbor Testing

Can we get Bob C a bottle of this for a Christmas present?

https://www.lifetechnologies.com/order/catalog/product/51200038

From: <Cross>, "Robert W." <<u>rwcross@UTMB.EDU></u>

Date: Tuesday, December 23, 2014 3:00 PM

To: Robert Garry <rfgarry@tulane.edu>

Cc: "mboisen24@gmail.com" <mboisen24@gmail.com

DSimpson@corgenix.com>, Dan Simpson <DFSimpson@corgenix.com>,

Kelly R Pitts < KRPitts@corgenix.com >, "Geisbert, Thomas

W." <twgeisbe@UTMB.EDU>,

"lbranco@zalgenlabs.com" <lbranco@zalgenlabs.com>

Subject: Re: FDA Comment Regarding Nearest Neighbor Testing

Indeed, phenol red.

Sent from mobile

On Dec 23, 2014, at 15:55, Garry, Robert F <rfgarry@tulane.edu> wrote:

Interesting – sure – that's usually phenol red right?

From: <Cross>, "Robert W." rwcross@UTMB.EDU>

Date: Tuesday, December 23, 2014 2:42 PM

To: Robert Garry <rfgarry@tulane.edu>

Cc: "mboisen24@gmail.com" <mboisen24@gmail.com>,

Doug Simpson < DSimpson@corgenix.com

DFSimpson@corgenix.com>, Kelly R Pitts

<KRPitts@corgenix.com>, "Geisbert, Thomas

W." <twgeisbe@UTMB.EDU>,

"lbranco@zalgenlabs.com" < lbranco@zalgenlabs.com>

Subject: Re: FDA Comment Regarding Nearest Neighbor

Testing

Sent from mobile

On Dec 23, 2014, at 15:38, Garry, Robert F <rfgarry@tulane.edu> wrote:



From: <Cross>, "Robert
W." <rwcross@UTMB.EDU>

Date: Tuesday, December 23, 2014 2:09 PM

To:

"mboisen24@gmail.com" < mboisen24@gmail.com >

Cc: Doug Simpson < DSimpson@corgenix.com >,
Dan Simpson < DFSimpson@corgenix.com >,
Robert Garry < rfgarry@tulane.edu >, Kelly R
Pitts < KRPitts@corgenix.com >, "Geisbert,
Thomas W." < twgeisbe@UTMB.EDU

lbranco@zalgenlabs.com" <lbranco@zalgenlabs.com>

Subject: Re: FDA Comment Regarding Nearest Neighbor Testing

Sound right to me, could be they needed more info on potential for interference from the MEM. hard to say.

Bob

Sent from mobile

On Dec 23, 2014, at 15:03, Matt Boisen mboisen24@gmail.com> wrote:

Thanks Bob,

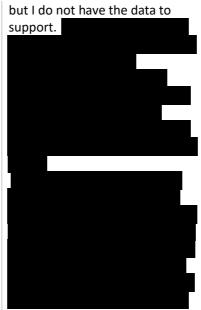


Matt

On Tue, Dec 23, 2014 at 12:46 PM, Cross, Robert W.

<rwcross@utmb.edu> wrote:

MEM refers to minimal essential media. We use "Eagle's Minimal Essential Media" as dictated by my report. Yes this media has a pH indicator in it, Its very possible this is an interferrant,



All this and relevant lot information for reagents used should have been supplied with the report I sent you.

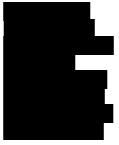
Let me know if further clarification is necessary.

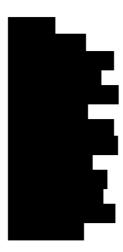
Bob Sent from mobile

On Dec 23, 2014, at 14:19, Matt Boisen < mboisen24@gmail.com> wrote:

Hi Bob,

If you can provide any additional clarification about their comment I'd appreciate it. I thought it was selfexplanatory enough but it many be receiving wider review.





→ FDA Comment 15:





Thanks,

Matt Boisen

Program Director Infectious Diseases
and Emerging
Technologies
Corgenix Medical
Corp.
11575 Main Street,
Suite 400
Broomfield, CO
80020 USA
Phone: 303-7757752
mboisen@corgenix

.com

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Director - In Vitro
Diagnostics
Viral Hemorrhagic
Fever Consortium
Center for
Infectious Diseases
Tulane University
School of Medicine
1430 Tulane
Avenue, JBJ
Building, Rm 557
New Orleans, LA

70112 USA mboisen@tulane.e du

Conferencing

Center

Dial-in:1-877-805-

0965

Passcode: 5769227

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Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA Phone: 303-775-7752 mboisen@corgenix.com

Development Director - In Vitro
Diagnostics
Viral Hemorrhagic Fever
Consortium
Center for Infectious Diseases
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Medicine
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New Orleans, LA 70112 USA
mboisen@tulane.edu

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA Phone: 303-775-7752

mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

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Dial-in:1-877-805-0965 Passcode: 5769227 Date: 12/17/2014 8:31:24 AM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU Subject: Re: FDA EUA Comments and Conf Call

I had the same thought and will check with Bente on this since he's on IRB, if specifically so then we can't do...but I think it may be possible under the umbrella we are under already. Will verify and let you know.

В

Sent from mobile

On Dec 17, 2014, at 08:05, Geisbert, Thomas W. <twgeisbe@UTMB.EDU> wrote:

OK on Chad. For blood I can't recall but does this need IRB approval?

From: Cross, Robert W.

Sent: Tuesday, December 16, 2014 6:24 PM

To: Geisbert, Thomas W.

Subject: RE: FDA EUA Comments and Conf Call

I'm going to see what the feasibility of getting blood from UTMB blood bank for this. I can probably run later this week if stars align, thinking Friday if I can get blood. If not, will shoot for immediately when I return the week of Dec 27th.

Ok to get Chad to pull a vial of Zaire-Guinea for me for this purpose?

Thanks!

Bob

From: Matt Boisen [mailto:mboisen24@gmail.com]
Sent: Tuesday, December 16, 2014 5:41 PM

To: Schieffelin, John S

Cc: Luis Branco; Garry, Robert F; Cross, Robert W.; Jessica Hartnett; rbw@autoimmune.com; Geisbert, Thomas W.; Mike Charbonnet; Rachael Yenni; Peter Kulakosky; Erica Ollmann Saphire; Molly Millett; Doug Simpson; Dan Simpson; Diana Nelson; Darin Oottamasathien; Kelly R Pitts; Lina Moses

Subject: Re: FDA EUA Comments and Conf Call

Hi All,

Attached are the FDA's comments we discussed during the Conference Call, my notes, and a punch list for the resubmission. One new kit is enroute to Tulane and UTMB as I previously emailed.

Additional Research Kits are available (we can always relabel the IUO kits as needed)

Dan will provide additional discussion points in his minutes.

Very Positive Day for the ReEBOV RDT product

Thanks everyone.

Matt

On Tue, Dec 16, 2014 at 3:04 PM, Schieffelin, John S <ischieff@tulane.edu> wrote:



Anyway, we're moving forward with the clinical trial. If activity continues at the current levels for the next three weeks, I will park myself in Kono with Michael and Mambu until the trial is complete.

John

--

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
Sections of Infectious Disease
Tulane University School of Medicine
1430 Tulane Ave TB-8
New Orleans, LA 70112
jschieff@tulane.edu
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: Matt Boisen <mboisen24@gmail.com>
Date: Tuesday, December 16, 2014 3:58 PM

To: Luis Branco <lbranco08@gmail.com>
Cc: "Garry, Robert F" <rfgarry@tulane.edu>, Robert Cross
<rwcross@utmb.edu>, john schieffelin <jschieff@tulane.edu>, Jessica
Hartnett <j.n.grove@gmail.com>,
"rbw@autoimmune.com" <rbw@autoimmune.com>, Tom Geisbert
<twgeisbe@utmb.edu>, Mike Charbonnet <mdc@autoimmune.com>,
Rachael Yenni <ryenni3@gmail.com>, Peter Kulakosky
<pck@autoimmune.com>, Erica Ollmann Saphire <erica@scripps.edu>,
Molly Millett <molly.marie.millett@gmail.com>, Doug Simpson
<DSimpson@corgenix.com>, Dan Simpson <DFSimpson@corgenix.com>
Subject: Re: FDA EUA Comments and Conf Call

One new kit of Research Use ReEBOV Antigen Rapid Test (Lot EZR-PP-141204R) is en route.

Tulane/Rachael: Tracking 6263 9348 4900

Bob/UTMB: Tracking 6263 9348 4896

Should arrive Priority Overnight

Matt

On Tue, Dec 16, 2014 at 2:32 PM, Luis Branco < lbranco08@gmail.com> wrote: From Mambu, regarding the request for the ReEBOV LFI and corresponding CDC qPCR results, which the KGH lab has on hand:

"Ok, can you just send an email to me Mr Goba and may be Sim or Gbetuwa"

On Tue, Dec 16, 2014 at 4:13 PM, Matt Boisen < mboisen24@gmail.com> wrote: Rickettsia testing is 2nd or 3rd tier request.

A higher priority for Rachael would be to gather as much information as possible on the preparation of the stock she used in testing: Stock ID, hrs cultured, any quantitation/OD504, etc)

On Tue, Dec 16, 2014 at 2:04 PM, Luis Branco < lbranco08@gmail.com> wrote: That's great, Matt

On the KGH study front let's get the data finalized and analyzed through JMP or any other acceptable statistical package. I will look through the data tonight to make sure there is nothing more than needs to be verified.

The UTMB testing should be pretty straight forward.

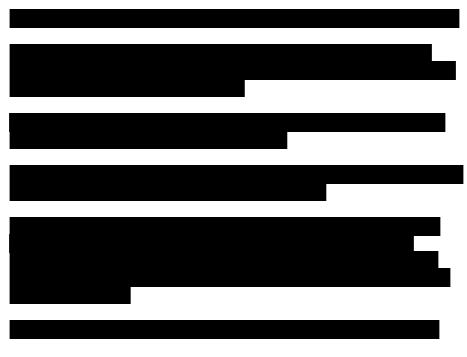
I'll inquire within the MD area networks for possible Rickettsia testing.

Well done,

Luis

On Tue, Dec 16, 2014 at 3:59 PM, Matt Boisen < mboisen24@gmail.com> wrote: Hi All,





--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA

Phone: <u>303-775-7752</u> mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227

--

Luis M Branco, Ph.D.
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200 Henry Clay Ave., New Orleans, LA 70118
&
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1430 Tulane Avenue, JBJ Building, Rm 557, New Orleans, LA 70112
Ibranco08@gmail.com
504-444-7047

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA

Phone: 303-775-7752 mboisen@corgenix.com

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Conferencing Center

Dial-in:<u>1-877-805-0965</u> Passcode: 5769227

--

Luis M Branco, Ph.D.
AutoImmune Technologies, LLC
200 Henry Clay Ave., New Orleans, LA 70118
&
Tulane University Health Science Center
1430 Tulane Avenue, JBJ Building, Rm 557, New Orleans, LA 70112
Ibranco08@gmail.com
504-444-7047

--

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Dial-in:1-877-805-0965 Passcode: 5769227 Date: 12/17/2014 12:32:37 PM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU Subject: Re: FDA EUA Comments and Conf Call

Talked with Bente, this is considered discarded material so no IRB needed past what we already have.

Bob

Sent from mobile

On Dec 17, 2014, at 08:05, Geisbert, Thomas W. <twgeisbe@UTMB.EDU> wrote:

OK on Chad. For blood I can't recall but does this need IRB approval?

From: Cross, Robert W.

Sent: Tuesday, December 16, 2014 6:24 PM

To: Geisbert, Thomas W.

Subject: RE: FDA EUA Comments and Conf Call

I'm going to see what the feasibility of getting blood from UTMB blood bank for this. I can probably run later this week if stars align, thinking Friday if I can get blood. If not, will shoot for immediately when I return the week of Dec 27th.

Ok to get Chad to pull a vial of Zaire-Guinea for me for this purpose?

Thanks!

Bob

From: Matt Boisen [mailto:mboisen24@gmail.com] **Sent:** Tuesday, December 16, 2014 5:41 PM

To: Schieffelin, John S

Cc: Luis Branco; Garry, Robert F; Cross, Robert W.; Jessica Hartnett; rbw@autoimmune.com; Geisbert, Thomas W.; Mike Charbonnet; Rachael Yenni; Peter Kulakosky; Erica Ollmann Saphire; Molly Millett; Doug Simpson; Dan Simpson; Diana Nelson; Darin Oottamasathien; Kelly R Pitts; Lina Moses

Subject: Re: FDA EUA Comments and Conf Call

Hi All,

Attached are the FDA's comments we discussed during the Conference Call, my notes, and a punch list for the resubmission. One new kit is enroute to Tulane and UTMB as I previously emailed.

Additional Research Kits are available (we can always relabel the IUO kits as needed)

Dan will provide additional discussion points in his minutes.

Very Positive Day for the ReEBOV RDT product

Thanks everyone.

Matt

On Tue, Dec 16, 2014 at 3:04 PM, Schieffelin, John S <ischieff@tulane.edu> wrote:



Anyway, we're moving forward with the clinical trial. If activity continues at the current levels for the next three weeks, I will park myself in Kono with Michael and Mambu until the trial is complete.

John

-

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
Sections of Infectious Disease
Tulane University School of Medicine
1430 Tulane Ave TB-8
New Orleans, LA 70112
jschieff@tulane.edu
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: Matt Boisen <mboisen24@gmail.com>
Date: Tuesday, December 16, 2014 3:58 PM
To: Luis Branco <lbranco08@gmail.com>
Cc: "Garry, Robert F" <rfgarry@tulane.edu>, Robert Cross
<rwcross@utmb.edu>, john schieffelin <jschieff@tulane.edu>, Jessica
Hartnett <j.n.grove@gmail.com>,
"rbw@autoimmune.com" <rbw@autoimmune.com>, Tom Geisbert
<twgeisbe@utmb.edu>, Mike Charbonnet <mdc@autoimmune.com>,
Rachael Yenni <ryenni3@gmail.com>, Peter Kulakosky
<pck@autoimmune.com>, Erica Ollmann Saphire <erica@scripps.edu>,
Molly Millett <molly.marie.millett@gmail.com>, Doug Simpson
<DSimpson@corgenix.com>, Dan Simpson <DFSimpson@corgenix.com>
Subject: Re: FDA EUA Comments and Conf Call

One new kit of Research Use ReEBOV Antigen Rapid Test (Lot EZR-PP-141204R) is en route.

Tulane/Rachael: Tracking 6263 9348 4900

Bob/UTMB: Tracking 6263 9348 4896

Should arrive Priority Overnight

Matt

On Tue, Dec 16, 2014 at 2:32 PM, Luis Branco < lbranco08@gmail.com> wrote: From Mambu, regarding the request for the ReEBOV LFI and corresponding CDC qPCR results, which the KGH lab has on hand:

"Ok, can you just send an email to me Mr Goba and may be Sim or Gbetuwa"

On Tue, Dec 16, 2014 at 4:13 PM, Matt Boisen < mboisen24@gmail.com> wrote: Rickettsia testing is 2nd or 3rd tier request.

A higher priority for Rachael would be to gather as much information as possible on the preparation of the stock she used in testing: Stock ID, hrs cultured, any quantitation/OD504, etc)

On Tue, Dec 16, 2014 at 2:04 PM, Luis Branco < lbranco08@gmail.com> wrote: That's great, Matt

On the KGH study front let's get the data finalized and analyzed through JMP or any other acceptable statistical package. I will look through the data tonight to make sure there is nothing more than needs to be verified.

The UTMB testing should be pretty straight forward.

I'll inquire within the MD area networks for possible Rickettsia testing.

Well done,

Luis

On Tue, Dec 16, 2014 at 3:59 PM, Matt Boisen < mboisen24@gmail.com> wrote: Hi All,





--

Matt Boisen

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Conferencing Center

Dial-in:1-877-805-0965 Passcode: 5769227 Date: 12/16/2014 3:09:16 PM From: "Cross, Robert W."

To: "Matt Boisen" mboisen24@gmail.com, "Robert Garry"

rfgarry@tulane.edu, "Luis Branco" lbranco08@gmail.com, "Schieffelin, John

S" jschieff@tulane.edu, "Jessica Hartnett" j.n.grove@gmail.com,

"rbw@autoimmune.com" rbw@autoimmune.com, "Geisbert, Thomas W."

twgeisbe@UTMB.EDU, "Mike Charbonnet" mdc@autoimmune.com,

"Rachael Yenni" ryenni3@gmail.com, "Peter Kulakosky"

pck@autoimmune.com, "Erica Ollmann Saphire" erica@scripps.edu, "Molly

Millett" molly.marie.millett@gmail.com, "Doug Simpson"

DSimpson@corgenix.com, "Dan Simpson" DFSimpson@corgenix.com

Subject: RE: FDA EUA Comments and Conf Call

Attachment: image001.png;

Congrats all around!

Matt, FYI: My return mission to Sierra Leone/Liberia with WHO is still pending. As it stands, I am scheduled to deploy mid-January and won't return until late February. We should work out specifics for UTMB testing ASAP in case we need to get another operator here at UTMB set up. Would prefer that I did it for continuity of process, but we may not have a choice. Also, we may be able to do whole blood from the blood bank here, I'll look into it on this end. Otherwise it will have to be serum....unless you know another means that would be acceptable for this.

Best,

Bob C

PS: Congrats to Molly!

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-266-6904 rwcross@utmb.edu



Working together to work wonders."

From: Matt Boisen [mailto:mboisen24@gmail.com]

Sent: Tuesday, December 16, 2014 2:59 PM

To: Robert Garry; Luis Branco; Cross, Robert W.; Schieffelin, John S; Jessica Hartnett; rbw@autoimmune.com; Geisbert, Thomas W.; Mike Charbonnet; Rachael Yenni; Peter

Kulakosky; Erica Ollmann Saphire; Molly Millett; Doug Simpson; Dan Simpson

Subject: FDA EUA Comments and Conf Call

Hi All,



--

Matt Boisen

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Phone: 303-775-7752

mboisen@corgenix.com

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Conferencing Center

Dial-in:1-877-805-0965 Passcode: 5769227 Date: 11/6/2014 11:07:50 PM From: "Cross, Robert W."

To: "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com, "Jessica

Grove" j.n.grove@gmail.com

Cc: "John S Schieffelin" jschieff@tulane.edu, "Moses, Lina M"

lmoses2@tulane.edu Subject : RE: Flying to SL

good question...i don't even know what the usual is...my last trip was 5 years ago and almost 2 months in the bush....completely different scenario...

b

From: Luis Branco - ZalgenLabs.com [lbranco@zalgenlabs.com]

Sent: Thursday, November 06, 2014 11:04 PM

To: Jessica Grove

Cc: John S Schieffelin; Cross, Robert W.; Moses, Lina M

Subject: Re: Flying to SL

It'll work out. Just need to be absolutely sure that pbmc don't sit in the lab post collection, without processing, so arriving in the evening before collection is fine. Btw, how much cash are we bringing per person? Is there need for more than usual, although this is a loaded question?

On Nov 6, 2014 11:11 PM, "Jessica Grove" < j.n.grove@gmail.com > wrote:

We will have around 35 boxes and trunks. There are around 18 boxes that are 18x18x24, around 15 trunks, the qPCR machine, and one or two cold boxes. It sounds like there will be five of u traveling from Freetown including Simbirie so I think three is probably necessary.

On Nov 6, 2014, at 9:49 PM, Schieffelin, John S <i schieff@tulane.edu> wrote:

Jess, can you give us an estimate of the number of trunks we will be transporting?

Lina, I about to draft a letter of our planned activities for everyone's review. Would like to send to Simbirie and Gevao tomorrow.

John

--

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
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New Orleans, LA 70112
jschieff@tulane.edu
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: <Moses>, Lina M <<u>lmoses2@tulane.edu</u>>
Date: Thursday, November 6, 2014 10:40 PM

To: john schieffelin < jschieff@tulane.edu >, "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com >, Jessica Grove

<j.n.grove@gmail.com>, "Cross, Robert W." <rwcross@UTMB.EDU>

Subject: Re: Flying to SL

Three vehicles?

Has someone sent a letter to Simbirie and Gevao outlining our planned activities and dates?

Sent using my phone. Please excuse typos and brevity in message.

From: Schieffelin, John S

Sent: Thursday, November 06, 2014 9:28:06 PM

To: Luis Branco - ZalgenLabs.com; Jessica Grove; Cross, Robert W.; Moses,

Lina M

Subject: Flying to SL

All.

Jess is getting us all packed up hear so we should be ready to go on Tuesday. Looks like we'll need to have three cars meet us in Lungi. I know that everyone is super eager to get to Kenema. Unfortunately, we will need to spend at least half a day in Freetown on the 14th. Because of all the different organizations rolling into town doing various things, the ministry is getting a little jumpy about who is coming and what they're doing. On top of all that, there are still lots of rumors floating around that we are conducting unethical research at what some refer to as the Tulane bioweapons lab. We need to knock on a few doors to make sure the right people know we're and town and what are plans are. It's a hassle, but we've got to do it.

John

__

John S. Schieffelin, M.D., M.S.P.H.
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Date: 11/27/2014 7:29:31 AM From: "Cross, Robert W."

To: "Schieffelin, John S" jschieff@tulane.edu, "rfgarry@tulane.edu" rfgarry@tulane.edu, "lbranco@zalgenlabs.com" lbranco@zalgenlabs.com Subject: Re: From Mr Gbetuwa

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Amazing!!
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Sent from mobile
> On Nov 27, 2014, at 7:26, "Schieffelin, John S" <jschieff@tulane.edu> wrote:
> Gbetuwa,
> Thank you for your email. We are also very excited about this test.
> However, we have to be cautious with the initial testing. We would be
> doing the country of Sierra Leone a great disservice if we deployed a test
> during this outbreak that we were not 100% confident in. Nevertheless,
> with all of the great support we are receiving, I believe that we will get
> the initial testing done quickly. Once complete, the broader deployment
> can proceed quickly.
> Making KGH a repository for all Ebola samples is invaluable.
> John
> --
> John S. Schieffelin, M.D., M.S P.H.
> Assistant Professor of Pediatrics and Internal Medicine
> Sections of Infectious Disease
> Tulane University School of Medicine
> 1430 Tulane Ave TB-8
> New Orleans, LA 70112
> jschieff@tulane.edu
> (504) 988-5117 (office)
> (504) 988-2613 (fax)
>
>> On 11/27/14 1:03 AM, "Momoh Gbetuwa" <momohgbetuwa@yahoo.com> wrote:
>> Dear Dr Robert
>> I had being for a scientific presentation in Freetown. In my presntation
>> i made mention of the the work Tolen researchers are doing atthe lasa
>> research lab in Kenema regarding the ebola rapid diagnostic test kit and
>> did expressed grate interest for us to cascade this test throughout the
>> country, this was discussed with Pro Gevao and did welcome the idea. At
>> the end of the occasion i had a meeting with the chief medical officer
>> (CMO) the director of hospital and laboratories, some ministers and some
>> senior medical professionals that were present in the forour and
>> suggested that if i could fast track the cascade the use of this kits. I
>> wrote a letter requesting the use of this kits for validation across all
>> the holdin and treatment centers in the country. This letter has being
>> approved by the CMO and a copy has being giving to Augustine Goba and
>> Simbirie, this am sure has being copied to you. I held a meeting with
>> Augustine Goba taking him through what was
>> discused in the meeting held in Freetown and he was as more than welcome
>> the idea. I am to start collecting all samples in all the ebola holding
```

>> and treatment centers across the country to be able to validate these

>> test kits.

```
>>
>> I will be more than welcome for any recommendations from you regarding
>> the sample collction and transportation.
>> Kind regards
>> Gbetuwa
>> On Tue, 11/25/14, simbirie jalloh <simbiriej5@gmail.com> wrote:
>> Subject: From Mr Gbetuwa
>> To: "Garry, Robert F" <rfgarry@tulane.edu>, "John SSchieffelin"
>> <jschieff@tulane.edu>, "Luis Branco" <lbranco08@gmail.com>, "Lina Moses"
>> linammoses@gmail.com>, "Cross, Robert W." <rwcross@utmb.edu>, "Momoh
>> Gbetuwa" <momohgbetuwa@yahoo.com>, "augstgoba" <augstgoba@yahoo.com>
>> Date: Tuesday, November 25, 2014, 5:20 PM
>> Dear All,
>> Please find attached a letter from the Head of the VHFs Lab,
>> Gbatuwa will give vivid explaining pertaining this letter.
>> Best regards
>> Simbirie Jalloh
>> Program Coordinator
>> Tulane/Lassa Fever Research Program -S/Leone
>> +232 33 491338/+232 76 350527
```

Date: 12/2/2014 10:35:05 AM From: "Cross, Robert W."

To: "Garry, Robert F" rfgarry@tulane.edu, "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com, "Matt Boisen" mboisen24@gmail.com, "Jessica Hartnett" j.n.grove@gmail.com

Subject: RE: G3771 and G4441 qPCR from Kenema

Bob C

From: Garry, Robert F [mailto:rfgarry@tulane.edu] **Sent:** Tuesday, December 02, 2014 10:10 AM

To: Luis Branco - ZalgenLabs.com; Matt Boisen; Cross, Robert W.; Garry, Robert F; Jessica

Hartnett

Subject: Re: G3771 and G4441 qPCR from Kenema

Can they do Lassa PCR too?

we need to send these samples in for deep sequencing.

From: "Luis Branco - ZalgenLabs.com" < Ibranco@zalgenlabs.com>

Date: Tuesday, December 2, 2014 9:59 AM

To: "mboisen24@gmail.com" <mboisen24@gmail.com>, "Cross, Robert

W." < rwcross@utmb.edu, Robert Garry < rfgarry@tulane.edu, Jessica Hartnett

<j.n.grove@gmail.com>

Subject: G3771 and G4441 qPCR from Kenema



These gentlemen pretty much nailed the qPCR!!! Sharp fellows...

--

Luis M Branco, Ph.D.
Co-Founder, Zalgen Labs, LLC
20271 Goldenrod Lane, Suite 2083
Germantown, MD 20876
504-444-7047 (cell)
504-252-0889 (main)
Ibranco@zalgenlabs.com

Date: 11/20/2014 9:06:56 AM From: "Cross, Robert W."

To: "Ntiforo, Corrie" contifor@UTMB.EDU

Cc: "Zimmerman, Dee" dzimmerm@UTMB.EDU, "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "Moses, Lina M" lmoses2@tulane.edu, "Augustine Goba" augstgoba@yahoo.com, "John Schieffelin" jschieff@tulane.edu

Subject : RE: Live Shipment: UTMB

yes 81 of each

From: Ntiforo, Corrie

Sent: Thursday, November 20, 2014 8:47 AM

To: Cross, Robert W.

Cc: Zimmerman, Dee; Geisbert, Thomas W.; Moses, Lina M; Augustine Goba; John

Schieffelin

Subject: RE: Live Shipment: UTMB

Thanks Bob.

Just making sure that we will still have 81 vials of each virus, is this still accurate? If not, we will need to readjust the volumes under quantity.

Thanks Corrie

From: Cross, Robert W.

Sent: Thursday, November 20, 2014 8:08 AM

To: Ntiforo, Corrie

Cc: Zimmerman, Dee; Geisbert, Thomas W.; Moses, Lina M; Augustine Goba; John

Schieffelin

Subject: RE: Live Shipment: UTMB

Importance: High

Hi Corrie,

Sorry for the delay. Please find the attached singed document. I've removed my name and just left Augustine as he will be the shipper for this shipment. I hope this is fine. If not, let me know and I will make another and get to you for forwarding to WC.

We are still waiting on the ethics letter, it is now making its rounds with the ethics committee so we should have this very soon.

The plan now is to have the box/samples ready and leave with Lina and Augustine. As soon as the ethics letter arrives we will coordinate the date of shipment and Augustine will drive the samples to the Freetown WC office.

Let me know when WC approves. And also remember to include that WC will need to bring dry ice for packing as Augustine will be brining them cross-country on wet-ice.

Thanks again Corrie!!!

Bob

From: Ntiforo, Corrie

Sent: Monday, November 17, 2014 6:51 PM

To: Cross, Robert W.

Cc: Zimmerman, Dee; Geisbert, Thomas W.

Subject: RE: Live Shipment: UTMB

OK, great. Keep us posted.

No other permits are required.

Corrie

Sent from my T-Mobile 4G LTE Device

----- Original message -----

From: "Cross, Robert W." < rwcross@UTMB.EDU>

Date: 11/17/2014 18:29 (GMT-06:00)

To: "Ntiforo, Corrie" <contifor@UTMB.EDU>

Cc: "Zimmerman, Dee" <dzimmerm@UTMB.EDU>, "Geisbert, Thomas

W." < twgeisbe@UTMB.EDU >

Subject: RE: Live Shipment: UTMB

Thanks for helping put the form together, I really appreciate it.

It appears that we won't have the full 81 of lasv so I'm going to make up the space with EBOV samples. I will send the final number tomorrow after we get the counts.

Ethics approval will be submitted tomorrow after we get the counts. Turnaround should be quick, but I cannot give guarantees. Possibly before I leave, but if shortly after...Lina is in country and will take to Freetown. Certainly well before the CDC permit expires.

We are required to bring any shipments to Freetown to drop off with WC there. There are too many checkpoints between Kenema and Freetown to allow them easy passage. Should the package need to leave after my departure, there is a team here that will ensure it gets to WC on the agreed on date.

I don't remember if we also needed an APHIS/USDA form with this? I know we went over one together, but there's been no mention since and the context escapes me.

More tomorrow.

Bob

From: Ntiforo, Corrie

Sent: Monday, November 17, 2014 6:01 PM

To: Cross, Robert W.

Cc: Zimmerman, Dee; Geisbert, Thomas W.

Subject: RE: Live Shipment: UTMB

Bob, Please double check that the info is correct on the attached DG form.

If everything looks ok...then I need you to sign the bottom as the packer/shipper and scan a copy back to us.

We will then submit this to WC to approve, and then they will let us set up a date.

How is the ethics approval looking?

Also, can you provide us with an address we can give WC in Freetown for pickup?

Corrie

From: Cross, Robert W.

Sent: Monday, November 17, 2014 5:15 AM

To: Ntiforo, Corrie

Cc: Zimmerman, Dee; Geisbert, Thomas W.

Subject: RE: Live Shipment: UTMB

Importance: High

Corrie,

I'm having issue accessing the webpage here. Internet access is somewhat random and when I get to the WC site i cannot find the form. I do not have a personal account, do I need to fill one out or is there a UTMB account I need to access to get in?

If you could fill out there that might be easiest, just let me know what info you need.

Please advise.

R

From: Ntiforo, Corrie

Sent: Sunday, November 16, 2014 10:27 AM

To: Cross, Robert W.; Garry, Robert F

Cc: Geisbert, Thomas W.; John Schieffelin; Moses, Lina M; Luis Branco; Augustine Goba;

Zimmerman, Dee

Subject: RE: Live Shipment: UTMB

Bob, can you please complete the WC dangerous goods form and forward to us.

Corrie

Sent from my T-Mobile 4G LTE Device

----- Original message -----

From: "Cross, Robert W." < rwcross@UTMB.EDU>

Date: 11/16/2014 09:07 (GMT-06:00)

To: "Ntiforo, Corrie" < contifor@UTMB.EDU>, "Garry, Robert

F" <rfgarry@tulane.edu>

Cc: "Geisbert, Thomas W." < twgeisbe@UTMB.EDU>, John Schieffelin

<jschieff@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu</pre>

lbranco08@gmail.com>, Augustine Goba <augstgoba@yahoo.com>, "Zimmerman,

Dee" <<u>dzimmerm@UTMB.EDU</u>> Subject: Live Shipment: UTMB Hi Corrie and Dr. Garry,

We will be shipping 81 LASV and 81 EBOV samples (volume 0.2ml/tube) to UTMB with a target ship date of Thursday 20NOV14 or Friday 21NOV14, pending World Courier and SLMOH ethics committee approvals.

Corrie will be orchestrating the shipment details with from the World Courier end and Dr. John Schieffelin will handle working with the ethics committee approvals. We expect a very quick turnaround for permissions with the SLMOH here, but will need confirmations from Corrie as soon as is feasible. Corrie, please let me know if you need further information from me.

Samples will be brought on wet ice to the World Courier office in Freetown on the approved date for packing on dry ice. Dr. Schieffelin and Augustine will be in Freetown handle the drop off at this point.

Please let me know if there are any questions, objections, or additions necessary.

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow: Geisbert Lab
Galveston National Laboratory
Rm. 5.324
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610
L: 409-266-6825
O:409-266-6594
rwcross@utmb.edu

Date: 11/20/2014 11:02:35 AM From: "Cross, Robert W."

To: "Zimmerman, Dee" dzimmerm@UTMB.EDU, "Ntiforo, Corrie"

contifor@UTMB.EDU

Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "Moses, Lina M" lmoses2@tulane.edu, "Augustine Goba" augstgoba@yahoo.com, "John

Schieffelin" jschieff@tulane.edu Subject : RE: Live Shipment: UTMB

Perfect, thanks!

RWC

From: Zimmerman, Dee

Sent: Thursday, November 20, 2014 10:53 AM

To: Cross, Robert W.; Ntiforo, Corrie

Cc: Geisbert, Thomas W.; Moses, Lina M; Augustine Goba; John Schieffelin

Subject: RE: Live Shipment: UTMB

Robert:

The only shipment that will need the drive to airport is the viable material to UTMB. I will share Lina's number with WC.

Dee Z.

Domenica (Dee) Zimmerman Biosafety Officer Alternate Responsible Official Environmental Health and Safety University of Texas Medical Branch 301 University Blvd. Galveston, TX 77555

Tel: 409 772-8137 Fax: 409 772-8138

Email: dzimmerm@utmb.edu

The contents of this electronic communication may be confidential by law and cannot be released to an unauthorized person. This communication is only for the intended recipient. You may not forward or otherwise distribute this communication or its contents without my express authorization. If you are not the intended recipient or have otherwise received this in error, please notify me and delete this communication and any attachments.

From: Cross, Robert W.

Sent: Thursday, November 20, 2014 10:51 AM

To: Zimmerman, Dee; Ntiforo, Corrie

Cc: Geisbert, Thomas W.; Moses, Lina M; Augustine Goba; John Schieffelin

Subject: RE: Live Shipment: UTMB

Of note, there are two shipments from this lab being processed by WC. One is NOT hot and is being sent to Tulane. The other is the hot UTMB shipment.

We can certainly arrange to have the UTMB shipment brought straight to the airport once it is approved to ship.

Augustine's number is on the WC shipper form. I can be contacted at 232-79-269-304. Lina will also be assisting with ensuring the shipment is sent her phone is: 232-76-731-584.

Please let us know if further info is needed.

Bob

From: Zimmerman, Dee

Sent: Thursday, November 20, 2014 10:43 AM

To: Cross, Robert W.; Ntiforo, Corrie

Cc: Geisbert, Thomas W.; Moses, Lina M; Augustine Goba; John Schieffelin

Subject: RE: Live Shipment: UTMB

Robert just found out that the WC Freetown office will not accept the shipment. It will have to be delivered to the airport and turned over to the WC person there. WC is in the process of contacting you and Augustine.

Dee Z.

Domenica (Dee) Zimmerman Biosafety Officer Alternate Responsible Official Environmental Health and Safety University of Texas Medical Branch 301 University Blvd. Galveston, TX 77555

Tel: 409 772-8137 Fax: 409 772-8138

Email: dzimmerm@utmb.edu

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From: Cross, Robert W.

Sent: Thursday, November 20, 2014 8:08 AM

To: Ntiforo, Corrie

Cc: Zimmerman, Dee; Geisbert, Thomas W.; Moses, Lina M; Augustine Goba; John

Schieffelin

Subject: RE: Live Shipment: UTMB

Importance: High

Hi Corrie,

Sorry for the delay. Please find the attached singed document. I've removed my name and just left Augustine as he will be the shipper for this shipment. I hope this is fine. If

not, let me know and I will make another and get to you for forwarding to WC.

We are still waiting on the ethics letter, it is now making its rounds with the ethics committee so we should have this very soon.

The plan now is to have the box/samples ready and leave with Lina and Augustine. As soon as the ethics letter arrives we will coordinate the date of shipment and Augustine will drive the samples to the Freetown WC office.

Let me know when WC approves. And also remember to include that WC will need to bring dry ice for packing as Augustine will be brining them cross-country on wet-ice.

Thanks again Corrie!!!

Bob

From: Ntiforo, Corrie

Sent: Monday, November 17, 2014 6:51 PM

To: Cross, Robert W.

Cc: Zimmerman, Dee; Geisbert, Thomas W.

Subject: RE: Live Shipment: UTMB

OK, great. Keep us posted.

No other permits are required.

Corrie

Sent from my T-Mobile 4G LTE Device

----- Original message -----

From: "Cross, Robert W." < rwcross@UTMB.EDU>

Date: 11/17/2014 18:29 (GMT-06:00)

To: "Ntiforo, Corrie" <contifor@UTMB.EDU>

Cc: "Zimmerman, Dee" <dzimmerm@UTMB.EDU>, "Geisbert, Thomas

W." < twgeisbe@UTMB.EDU >
Subject: RE: Live Shipment: UTMB

Thanks for helping put the form together, I really appreciate it.

It appears that we won't have the full 81 of lasv so I'm going to make up the space with EBOV samples. I will send the final number tomorrow after we get the counts.

Ethics approval will be submitted tomorrow after we get the counts. Turnaround should be quick, but I cannot give guarantees. Possibly before I leave, but if shortly after...Lina is in country and will take to Freetown. Certainly well before the CDC permit expires.

We are required to bring any shipments to Freetown to drop off with WC there. There are too many checkpoints between Kenema and Freetown to allow them easy passage. Should the package need to leave after my departure, there is a team here that will ensure it gets to WC on the agreed on date.

I don't remember if we also needed an APHIS/USDA form with this? I know we went over one together, but there's been no mention since and the context escapes me.

More tomorrow.

Bob

From: Ntiforo, Corrie

Sent: Monday, November 17, 2014 6:01 PM

To: Cross, Robert W.

Cc: Zimmerman, Dee; Geisbert, Thomas W.

Subject: RE: Live Shipment: UTMB

Bob, Please double check that the info is correct on the attached DG form.

If everything looks ok...then I need you to sign the bottom as the packer/shipper and scan a copy back to us.

We will then submit this to WC to approve, and then they will let us set up a date.

How is the ethics approval looking?

Also, can you provide us with an address we can give WC in Freetown for pickup?

Corrie

From: Cross, Robert W.

Sent: Monday, November 17, 2014 5:15 AM

To: Ntiforo, Corrie

Cc: Zimmerman, Dee; Geisbert, Thomas W.

Subject: RE: Live Shipment: UTMB

Importance: High

Corrie,

I'm having issue accessing the webpage here. Internet access is somewhat random and when I get to the WC site i cannot find the form. I do not have a personal account, do I need to fill one out or is there a UTMB account I need to access to get in?

If you could fill out there that might be easiest, just let me know what info you need.

Please advise.

В

From: Ntiforo, Corrie

Sent: Sunday, November 16, 2014 10:27 AM

To: Cross, Robert W.; Garry, Robert F

Cc: Geisbert, Thomas W.; John Schieffelin; Moses, Lina M; Luis Branco; Augustine Goba;

Zimmerman, Dee

Subject: RE: Live Shipment: UTMB

Bob, can you please complete the WC dangerous goods form and forward to us.

Corrie

----- Original message -----

From: "Cross, Robert W." <rwcross@UTMB.EDU>

Date: 11/16/2014 09:07 (GMT-06:00)

To: "Ntiforo, Corrie" <contifor@UTMB.EDU>, "Garry, Robert

F" <rfgarry@tulane.edu>

Cc: "Geisbert, Thomas W." < twgeisbe@UTMB.EDU>, John Schieffelin

<jschieff@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu</pre>

lbranco08@gmail.com>, Augustine Goba <augstgoba@yahoo.com>, "Zimmerman,

Dee" <<u>dzimmerm@UTMB.EDU</u>> Subject: Live Shipment: UTMB

Hi Corrie and Dr. Garry,

We will be shipping 81 LASV and 81 EBOV samples (volume 0.2ml/tube) to UTMB with a target ship date of Thursday 20NOV14 or Friday 21NOV14, pending World Courier and SLMOH ethics committee approvals.

Corrie will be orchestrating the shipment details with from the World Courier end and Dr. John Schieffelin will handle working with the ethics committee approvals. We expect a very quick turnaround for permissions with the SLMOH here, but will need confirmations from Corrie as soon as is feasible. Corrie, please let me know if you need further information from me.

Samples will be brought on wet ice to the World Courier office in Freetown on the approved date for packing on dry ice. Dr. Schieffelin and Augustine will be in Freetown handle the drop off at this point.

Please let me know if there are any questions, objections, or additions necessary.

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow: Geisbert Lab
Galveston National Laboratory
Rm. 5.324
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610
L: 409-266-6825
O:409-266-6594
rwcross@utmb.edu

Date: 11/18/2014 10:01:36 AM From: "Cross, Robert W."

To: "Mire, Chad" chmire@UTMB.EDU

Subject: RE: LRP things

I'll sleep when I'm dead.

From: Mire, Chad

Sent: Tuesday, November 18, 2014 7:55 AM

To: Cross, Robert W. **Subject:** Re: LRP things

What kind of sleeping pattern do you have going:)

Sent from my Verizon Wireless 4G LTE Smartphone

---- Reply message -----

From: "Cross, Robert W." <rwcross@UTMB.EDU>

To: "Geisbert, Thomas W." <twgeisbe@UTMB.EDU>, "Mire,

Chad" <chmire@UTMB.EDU>

Subject: LRP things

Date: Tue, Nov 18, 2014 04:19

Also, also...some more possible fodder for justification for my LRP...

John also has expressed great interest and funding capacity through Tulane (John was just scored a 13 on a recent clinical trials grant) for a return trip for me (and possibly another one of our people to come out here during hurricane season for some reciprical in country training/research if we were interested. This and the potential WHO GOARN trip for me in the new year would certainly qualify for clinical research as well.

b

From: Cross, Robert W.

Sent: Monday, November 17, 2014 6:39 PM **To:** Geisbert, Thomas W.; Mire, Chad

Subject: RE: LRP things

Also, just talked with John Scheiflin (from Tulane-part of the B-Cell). Apparently NIH got hit hard about the renewal issue and at the end of the day, the contract has been and will be renewed on an anuall basis, as long as there is an EBOV component to the work in some capacity. Exactly how that fits into UTMB might require a little wiggling, but just wanted to forward that info in case it hasn't made its way down the pike.

Maybe we can say I'm also bringing back EBOV samples back to do similiar things with, free associating....

From: Cross, Robert W.

Sent: Monday, November 17, 2014 6:05 PM **To:** Geisbert, Thomas W.; Mire, Chad

Subject: RE: LRP things

Hi Tom,

Man, bad timing...sorry for all the hassle. I suppose it would help if you had my research activities summary...it is now attached.

So after talking with the LRP folks about my last application, they mentioned that it would not be necessary for me to alter my project significantly save for updates and possibly progress, if applicable. They also mentioned that any supported funding did not have to specifically support the research the applicant was stating they would do, they just had to have a means to cover the work and salary for the duration of the contract.

So I did not alter the research component of my application except to say that we have, and are in the process of, acquiring the samples needed to do this. Wasn't it that we had some type of grant funding to support the testing of currently circulating isolates? Getting these isolates ready and doing any of the suggested work won't be an overnight thing so I don't really see a huge problem. In hindsight, as Chad mentioned, I should have put the dipsticks directly into my research write-up, but perhaps in your recommendation (or justification, what have you...) the dipstick work could be incorporated into this writeup as further justification?

Here's some definitions from the NIH LRP website:

- 1. Qualified Research you must engage in qualified research that represents 50 percent of your level of effort and consumes an average of at least 20 hours per week during each quarterly service period during the contract (2 years for the initial contract). The LRP contract normally starts on July 1 of the year following your application and you must be conducting your research for the entire period of your contract. LRP contracts are not retroactive to any prior date.
- 2. Clinical Research definition from NIAID component: Patient-oriented research conducted with human subjects, or research on the causes and consequences of disease in human populations involving material of human origin (such as tissue specimens and cognitive phenomena) for which an investigator or colleague directly interacts with human subjects in an outpatient or inpatient setting to clarify a problem in human physiology, pathophysiology or disease, epidemiologic or behavioral studies, outcomes or health services research, or developing new technologies, therapeutic interventions, or clinical trials

Let me know if there's anything I can add or maybe help otherwise,

Bob

From: Geisbert, Thomas W.

Sent: Monday, November 17, 2014 4:33 PM

To: Mire, Chad; Cross, Robert W.

Subject: RE: LRP things

OK, that helps and that is what I needed some help with. I want to do all that I can and the more that you all can help me help you the better.

From: Mire, Chad

Sent: Monday, November 17, 2014 4:31 PM **To:** Geisbert, Thomas W.; Cross, Robert W.

Subject: RE: LRP things

No worries Tom. I can sit down with you and help anyway you need. As far as the funding I put; I went a totally different direction this time around since it seemed NIH wasn't keen on keeping Kenema funded and I didn't get the renewal last year. I focused on the human diagnostics we have developed with Lucigen and Boston University and the fact that I have been tabbed by LeDuc to do testing for any Texas Ebola case as part of his Task Force request. With Boston and Lucigen we can multiplex LASV and EBOV and I emphasized the need for that in West Africa; as Bob is seeing firsthand. I stayed away from the Tulane dipstick as I thought maybe Bob would have focused on that aspect.

Chad

From: Geisbert, Thomas W.

Sent: Monday, November 17, 2014 4:23 PM **To:** Mire, Chad; Cross, Robert W.; Fenton, Karla A.

Subject: LRP things

I have received a form letter from Connie Barton here at UTMB for each of you (see below) and also have gotten e-mails from NIH for each of you regarding on line forms that I need to complete by 1 December. In terms of the e-mail from Connie I have taken care of this for Karla as we had to tie this to the FDA Animal Rule. For Bob and Chad we need to discuss what Connie has written below as they did not do this in the past in terms of how this works in particular request verification from me in writing. I thought we had dealt with number 1 but I need clarification. For number 2 this also could be an issue with B cell ending.

In terms of the forms that I need to complete on line I will likely need help with this. While I am 120% supportive the timing of this is unfortunate. It is part of my job and I want to do a good job. At the same time I am to the north of beyond overwhelmed which only got worse by being out last week. With a lot of other things that I have to get done I really will need to get this done by COB Thursday. I will try to go on line tomorrow to see what the exact questions are. Hopefully, I can locate what was done for Bob and Chad last time or maybe there is some way on line that I can recapture that.

Tom

"......has submitted an application to the NIH Loan Repayment Program (LRP). In order to complete the application, will you provide me with Institutional Base Salary and an assurance that he/she will have:

1. a minimum of 20 hours per week of qualified Clinical Research;

2. support for 2 years effective on the date of execution of the LRP contract (between June-August 2015)
If you have any questions, please do not hesitate to contact me.
Thanks,
Connie

Date: 3/23/2014 3:35:46 PM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "Ntiforo, Corrie"

contifor@UTMB.EDU

Subject: RE: Macenta outbreak

No problem,

If you've not made it back by the time the call happens, I'll get you the executive summery ASAP.

Bob 552.117

From: Geisbert, Thomas W.

Sent: Sunday, March 23, 2014 3:28 PM To: Ntiforo, Corrie; Cross, Robert W. Subject: RE: Macenta outbreak

I will be on the way back to Galveston tomorrow morning and should be back around 1 pm but please do not hesitate to call me anything from me on this.

Many thanks!

Tom

From: Ntiforo, Corrie

Sent: Sunday, March 23, 2014 10:12 AM **To:** Cross, Robert W.; Geisbert, Thomas W.

Subject: Re: Macenta outbreak

Bob, what time will you be at work tomorrow? I will be in at 7, can you and I connect then before my 8 am conference call??

If Lina is available I will be free from 11-1 and then again anytime after 3 pm.

As of now, it looks like we will need a CDC import permit for the diagnostic samples.

http://www.cdc.gov/od/eaipp/importApplication/agents.htm

It states any biological material that is known or reasonably expected to contain an infectious biological agent needs a permit. I have a contact in CDC import permit office, so I will call them first thing in the morning to confirm when their office opens.

From: Robert Cross

Sent: |Sunday|, |March||23|, |2014

To: Corrie Ntiforo, Geisbert, Thomas W.

Just talked with Lina. Some updates.

They have two samples from Nzerekore, Guinea (just southwest of Macenta) that are fitting the symptomatic criteria for VHF, but they are only ruling out LASV at the Kenema lab in Sierra Leone. They do not have capacity to rule out other VHF and this will be where we come in. Though not from Macenta directly, it is still pretty close and not definitive that the samples werent from surounding area. Given the high level of transience of the folks in the area this will be informative of the potential spread.

As one might expect, cold chain has been abismal where -20 is the lowest the samples have been, though it appears they've been maintained at such which helps. They have made aliquots of 100ul per sample of serum and are taking 150 additional to extract RNA by AVL. RNA will be lyophylized prior to shipment to us. They are trying to get many of the LASV samples/inventory together for us so that this will all arrive in one shipment. Bob Garry is aware of all of this.

I will be in contact with her daily until we are ready to put the stuff on the plane to help express the urgency here. Corrie, lets connect tomorrow for an update call with her if you have time.

Bob

From: Ntiforo, Corrie

Sent: Saturday, March 22, 2014 8:35 PM

To: Cross, Robert W.

Subject: RE: Macenta outbreak

Ok, I am checking into any permits we may need.

----- Original message ------

From: "Cross, Robert W."

Date:03/22/2014 6:42 PM (GMT-06:00)

To: "Ntiforo, Corrie"

Cc: Lina Moses ,"Geisbert, Thomas W."

Subject: Fwd: Macenta outbreak

FYI, Lina maybe needing to send us something ASAP by diagnostic route, see below.

Bob

Sent from mobile

Begin forwarded message:

From: Lina Moses < linammoses@gmail.com>

Date: March 22, 2014 at 10:35:49 CDT

To: "Cross, Robert W." < rwcross@utmb.edu>

Subject: Re: Macenta outbreak

Samples coming from Guinea today. Dr. Khan and I were discussing shipping aliquots out ASAP. Was trying to get some to you, but keep it on the down low for now. I have no idea how old they are.

On Sat, Mar 22, 2014 at 2:48 PM, Cross, Robert W.

<rwcross@utmb.edu> wrote:

You have any info on this?

В

Sent from mobile

Date: 3/23/2014 10:20:06 AM From: "Cross, Robert W."

To: "Ntiforo, Corrie" contifor@UTMB.EDU

Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject: Re: Macenta outbreak

I'll check on availability, but somewhere from 11-1 central make the most sense logistically.

I'm sure CDC will push through the permit considering...at least I hope so...

I'll shoot an update on times as soon as I get word.

В

Sent from mobile

On Mar 23, 2014, at 10:12, "Ntiforo, Corrie" <contifor@UTMB.EDU> wrote:

Bob, what time will you be at work tomorrow? I will be in at 7, can you and I connect then before my 8 am conference call??

If Lina is available I will be free from 11-1 and then again anytime after 3 pm.

As of now, it looks like we will need a CDC import permit for the diagnostic samples.

http://www.cdc.gov/od/eaipp/importApplication/agents.htm

It states any biological material that is known or reasonably expected to contain an infectious biological agent needs a permit. I have a contact in CDC import permit office, so I will call them first thing in the morning to confirm when their office opens.

Sent from Windows Mail

From: Robert Cross

Sent: |Sunday|, |March||23|, |2014

To: Corrie Ntiforo, Geisbert, Thomas W.

Just talked with Lina. Some updates.

They have two samples from Nzerekore, Guinea (just southwest of Macenta) that are fitting the symptomatic criteria for VHF, but they are only ruling out LASV at the Kenema lab in Sierra Leone. They do not have capacity to rule out other VHF and this will be where we come in. Though not from Macenta directly, it is still pretty close and not definitive that the samples werent from surounding area. Given the high level of transience of the folks in the area this will be informative of the potential spread.

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I will be in contact with her daily until we are ready to put the stuff on the plane to help express the urgency here. Corrie, lets connect tomorrow for an update call with her if you have time.

Bob

From: Ntiforo, Corrie

Sent: Saturday, March 22, 2014 8:35 PM

To: Cross, Robert W.

Subject: RE: Macenta outbreak

Ok, I am checking into any permits we may need.

----- Original message -----

From: "Cross, Robert W."

Date:03/22/2014 6:42 PM (GMT-06:00)

To: "Ntiforo, Corrie"

Cc: Lina Moses ,"Geisbert, Thomas W."

Subject: Fwd: Macenta outbreak

FYI, Lina maybe needing to send us something ASAP by diagnostic route, see below.

Bob

Sent from mobile

Begin forwarded message:

From: Lina Moses < linammoses@gmail.com>

Date: March 22, 2014 at 10:35:49 CDT

To: "Cross, Robert W." <<u>rwcross@utmb.edu</u>>

Subject: Re: Macenta outbreak

Samples coming from Guinea today. Dr. Khan and I were discussing shipping aliquots out ASAP. Was trying to get some to you, but keep it on the down low for now. I have no idea how old they are.

On Sat, Mar 22, 2014 at 2:48 PM, Cross, Robert W.

<rwcross@utmb.edu> wrote:

You have any info on this?

В

Sent from mobile

Date: 12/10/2014 8:29:08 AM From: "Cross, Robert W."

To: "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com Cc: "Robert Garry" rfgarry@tulane.edu, "Doug Simpson"

dsimpson@corgenix.com, "Matt Boisen" mboisen24@gmail.com, "Russell Wilson" rbw@autoimmune.com, "Jessica Hartnett" j.n.grove@gmail.com

Subject : RE: Mambu's g chat - today

Farmer is a big time, public health philanthropist. He's supporting two treatment centers in WA, one in KONO, Salone and the other in Liberia. He runs an NGO called Partner's in Health, they do a lot of crisis management projects globally...think the most recent Haiti disaster.

Given the rapid mobilization of this issue, lack of adequate training and true appreciation of how infectious and stability of the virus is clearly causing problems....on both foreign and domestic fronts. This thing is a damn hockey puck of a virus and those that are sick are clearly shedding A LOT of virus. Its little wonder how folks that are getting thrown into this are getting infected.

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com]

Sent: Tuesday, December 09, 2014 7:40 PM

To: Cross, Robert W.

Cc: Robert Garry; Doug Simpson; Matt Boisen; Russell Wilson; Jessica Hartnett

Subject: Re: Mambu's g chat - today

Who is Paul Farmer? Maybe I'm missing something here... I wonder if Mambu is referring to Kono's medical staff or foreign personnel. Either way, not a good scenario.

I'm glad that we have independent confirmation of how well the RDTs are working...

I found it funny that WHO is "gathering" submission requests for approval of EBOV diagnostics, and that unless they independently verify claims it's a no go for them. I'm still unsure why a WHO stamp of approval is the end game...

On Tue, Dec 9, 2014 at 4:57 PM, Cross, Robert W. < <u>rwcross@utmb.edu</u>> wrote: Isn't this the group that Paul Farmer's group is hooking up with in Kono? If so, that won't bode well for PIH's efforts. I know are farming out their lab work.

Hoping for a speedy recovery of their staff, and a safe support mission to the Tulane/Kenema crew.

RWC

From: Luis Branco - ZalgenLabs.com [mailto:lbranco@zalgenlabs.com]

Sent: Tuesday, December 09, 2014 3:51 PM

To: Robert Garry; Doug Simpson; Matt Boisen; Russell Wilson; Jessica Hartnett; Cross,

Robert W.

Subject: Mambu's g chat - today

G-chat from Mambu today, updating on the use of rapid tests in the field. Feel free to pass along to other team members.

Mambu:

Mambu:

Mambu: We also had WHO presence here today and red cross as Kono is a hot spot right now

Mambu: Out of 7 tested today, 6 were positive

Mambu: One of the staff present in Kono here ask me to have photo as she was communicating to her boss but I told her that am not mandated to do except contact Tulane or my Bosses in kenema

Mambu: It's seems they are getting impressed

Mambu:Yap, we are also very happy with the team progress

Am just bit worried because Kono case is getting tense

Staying safe is our priority here as we have also started seeing infections among their staff here

Mambu

--

Luis M Branco, Ph.D. Co-Founder, Zalgen Labs, LLC 20271 Goldenrod Lane, Suite 2083 Germantown, MD 20876 504-444-7047 (cell) 504-252-0889 (main) lbranco@zalgenlabs.com

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Luis M Branco, Ph.D. Co-Founder, Zalgen Labs, LLC 20271 Goldenrod Lane, Suite 2083 Germantown, MD 20876 504-444-7047 (cell) 504-252-0889 (main) lbranco@zalgenlabs.com Date: 10/24/2014 12:10:57 PM From: "Cross, Robert W."

To: "'Luis Branco'" lbranco08@gmail.com, "'Garry, Robert F'" rfgarry@tulane.edu,

"Geisbert, Thomas W." twgeisbe@UTMB.EDU

Cc: "'Russell Wilson'" rbw@autoimmune.com, "'Matt Boisen'" mboisen24@gmail.com, "'Bethany Belote'" BBelote@corgenix.com, "'Lina Moses'" linammoses@gmail.com, "'Doug Simpson'" DSimpson@corgenix.com, "'Dan Simpson'" DFSimpson@corgenix.com, "'Schieffelin, John S'" jschieff@tulane.edu, "'Molly Millett'" molly.marie.millett@gmail.com Subject: RE: Moving forward

Shouldn't be a problem to ship that as long as we can account for volumes. May make for an inventory nightmare since anything coming out of that region is automatically a select agent now. The value of that kind of data may be worth the trouble though?

Bob

BTW just finished prelim LOD on RDT with Guinea Strain vs vp40 antigen...report to follow.

From: Luis Branco [mailto:lbranco08@gmail.com]

Sent: Friday, October 24, 2014 8:57 AM

To: Garry, Robert F

Cc: Russell Wilson; Matt Boisen; Bethany Belote; Lina Moses; Doug Simpson; Dan Simpson; Schieffelin,

John S; Molly Millett; Cross, Robert W.

Subject: Re: Moving forward

Bob Cross is working out shipment details and permits for live samples out of SL and to UTMB. Maybe we can include other bodily fluids in the shipment if they test EBOV+ by PCR or Ag, to determine if there is infectious virus.

Bob, can this be accommodated?

On Fri, Oct 24, 2014 at 9:49 AM, Garry, Robert F < rfgarry@tulane.edu> wrote: Rather strange to me that Gunther did not include virus culture data.

We do not know if the viral genetic material in sweat is in whole infectious virions or degraded noninfectious virions.

IOWS is there infectious virus in sweat.

The new NEJM paper not entirely consistent with:

http://jid.oxfordjournals.org/content/196/Supplement_2/S142.long

From: Russell Wilson <rbw@autoimmune.com>

Date: Friday, October 24, 2014 8:41 AM **To:** Robert Garry < rfgarry@tulane.edu>

Cc: "Luis M. Branco" < lbranco08@gmail.com, "mboisen24@gmail.com" < mboisen24@gmail.com, Bethany Belote < Belote@corgenix.com, Lina Moses < linammoses@gmail.com, Doug Simpson < DSimpson@corgenix.com, Dan Simpson < DFSimpson@corgenix.com, "Schieffelin, John < Lbrancom, Lina Moses < lbrancom, "Schieffelin, John

S" <jschieff@tulane.edu>, Molly Millett <molly.marie.millett@gmail.com>

Subject: Re: Moving forward

Well, I guess CDC needs to update the possible routes of transmission again to include sweat. I guess that you can transmit by sweating on the bus seat and someone sitting after you.

On Oct 24, 2014, at 7:45 AM, Garry, Robert F <rfgarry@tulane.edu> wrote:

SEE ATTACHED:



From: Luis Branco < lbranco08@gmail.com>
Date: Friday, October 24, 2014 7:12 AM

To: "mboisen24@gmail.com" <mboisen24@gmail.com>

Cc: Bethany Belote BBelote@corgenix.com, Lina Moses Linammoses@gmail.com, Robert

Garry <rfgarry@tulane.edu>, Russell Wilson <rbw@autoimmune.com

DSimpson@corgenix.com>, Dan Simpson < DFSimpson@corgenix.com>, "Schieffelin, John

S" <jschieff@tulane.edu>, Molly Millett <molly.marie.millett@gmail.com>

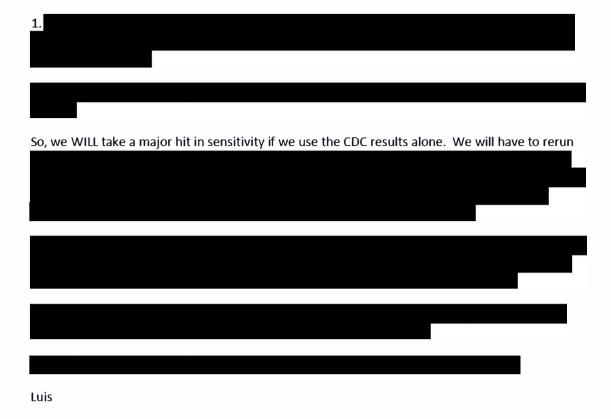
Subject: Re: Moving forward

I would if I didn't have a 6-year old who is also my best buddy in the world and who will never forgive me if I miss Christmas - I'm already missing out of Thanksgiving this year.

If John obtains IRB approval to test beyond banked samples we can collect a good bit of data on fresh specimens. In this case I hope we can expand the testing to any reasonably obtained bodily fluid. This is the time to investigate these options.

Based on what I know not many cases are showing up in Kenema, and the CDC operations moved out of Kenema (in Bo now?). Can we obtain samples from those cases, and if so, how will we manage this? It would almost require someone stationed on location to get a drop of blood and test upon sample arrival. This may be best coordinated with the UNICEF folks, but I would be delighted to get fresh sample data.

For the nth time in many conversations we've had over the past few weeks I have a major issue with going to Kenema, running the whole suite of assays, then comparing side by side with a list of CDC PCR results. Here's why:



On Fri, Oct 24, 2014 at 12:26 AM, Matt Boisen mboisen24@gmail.com wrote:

I think its easier for Luis to just stay in SL. Otherwise he'll be 21d quarantine in kenema, then Freetown, Belgium, Frankfurt, Washington Airport, finally 42d home restriction. So might as well stay and serve as site monitor. I'll send kits with frozen malbec wine instead of sirlion steaks.

On Oct 23, 2014 10:36 PM, "Bethany Belote" <BBelote@corgenix.com> wrote:

Here is a first draft clinical protocol for the Ebola LFI.

The major questions that need to be addressed:



- Do we have antibody ELISAs to send as well?
- Would you like for me to create an evaluation form, laboratory form, and informed consent and assent form?

Please add in all edits pretty quickly and return to me or John, as John wants to submit to the IRB ASAP!

Thanks!

Bethany L. Brown, MSCS
Regulatory and Clinical Affairs Specialist
[CORGENI7001_001]
| 11575 Main ST, Ste 400 | Broomfield | CO | 80020 |
| *P: 303.457.4345 Ext. 125 or 129 | *C: 501.472.8511 | 6F: 303.457.4519 |
* bbelote@corgenix.com<mailto:bbelote@corgenix.com>*
www.corgenix.com<http://www.corgenix.com/>

P Please consider the environment before printing this e-mail or attachments.

From: Schieffelin, John S [mailto:jschieff@tulane.edu]

Sent: Tuesday, October 21, 2014 5:18 PM

To: Bethany Belote; 'Russell Wilson'; Matt Boisen

Cc: Luis M. Branco; Dan Simpson; Doug Simpson; Garry, Robert F; Molly Millett

Subject: Re: Moving forward

Would it be reasonable to prepare an IRB proposal to collect the clinical data, but only implement AFTER we have the EUA?

If so, can someone draft a protocol? Or at least give me a study design on a cocktail napkin so I have a general idea of what you are looking for. I think I can get this approved quickly but I need to submit a full proposal.

_

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
Sections of Infectious Disease
Tulane University School of Medicine
1430 Tulane Ave TB-8
New Orleans, LA 70112
jschieff@tulane.edu<mailto:jschieff@tulane.edu>
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: Bethany Belote <BBelote@corgenix.com<mailto:BBelote@corgenix.com>>>

Date: Tuesday, October 21, 2014 2:20 PM

To: 'Russell Wilson' <rbw@autoimmune.com<mailto:rbw@autoimmune.com

MBoisen24@gmail.com<mailto:MBoisen24@gmail.com>>>

Cc: "Luis M. Branco" < lbranco08@gmail.com < mailto:lbranco08@gmail.com

DFSimpson@corgenix.com<mailto:DFSimpson@corgenix.com>>, john schieffelin

<jschieff@tulane.edu<mailto:jschieff@tulane.edu>>, Doug Simpson

<DSimpson@corgenix.com<mailto:DSimpson@corgenix.com>>, "Garry, Robert

F" <rfgarry@tulane.edu<mailto:rfgarry@tulane.edu>>, Molly Millett

<molly.marie.millett@gmail.com<mailto:molly.marie.millett@gmail.com>>>

Subject: RE: Moving forward



We are trying to keep communication tight, as to not allow any

unnecessary time to pass!

Go team!

Bethany L. Brown, MSCS
Regulatory and Clinical Affairs Specialist
[CORGENI7001_001]
|11575 Main ST, Ste 400 |Broomfield | CO | 80020 |
|*P:303.457.4345 Ext.125 or 129 | *C:501.472.8511 |6F: 303.457.4519 |

*bbelote@corgenix.com<mailto:bbelote@corgenix.com>*www.corgenix.com<http://www.corgenix.com/>

PPlease consider the environment before printing this e-mail or attachments.

From: Russell Wilson [mailto:rbw@autoimmune.com]

Sent: Tuesday, October 21, 2014 10:18 AM

To: Matt Boisen

Cc: Luis M. Branco; Dan Simpson; John S Schieffelin; Bethany Belote; Doug Simpson; Robert Garry;

Molly Millett

Subject: Re: Moving forward



Russell

On Oct 21, 2014, at 9:45 AM, Matt Boisen mboisen24@gmail.com wrote:

Mass hysteria about rapid test availability? That cow left the barn weeks ago.

On Tue, Oct 21, 2014 at 8:12 AM, Luis Branco < lbranco08@gmail.com> wrote: Let's get the ball rolling with Sylvia. Want me and Matt to take the lead and push on this?

One thing we have to account for is the work we intend to perform in SL in a few weeks, versus the additional tests that may be needed to supply UNICEF for initial assessment on the ground. We can't dip into the lab supplies too much, as we will compromise the project's goals. So, let's plan for extra assays... if you are ok with having tests being evaluated outside the controlled lab environment at this stage. This is something that needs to be ironed out with UNICEF before we go. Don't want to start mass hysteria about a rapid test being available.

On Tue, Oct 21, 2014 at 10:05 AM, Doug Simpson <DSimpson@corgenix.com</pre><mailto:DSimpson@corgenix.com>> wrote:

Sent from my iPhone

Begin forwarded message:

From: Paul Pronyk pronyk@unicef.org<mailto:ppronyk@unicef.org>

<mailto:ppronyk@unicef.org<mailto:ppronyk@unicef.org>>>

Date: October 21, 2014 at 7:50:36 AM MDT

To: Doug Simpson < DSimpson@corgenix.com < mailto: DSimpson@corgenix.com

DSimpson@corgenix.com<mailto:DSimpson@corgenix.com>>>

Subject: Moving forward

Hi Doug



Warm regards Paul

Dr Paul Pronyk

Senior Health Specialist, UNICEF, New York

Mobile (US): + 1 917 242 9774<tel:%2B%201%20917%20242%209774>

Mobile (Sierra Leone): + 232 79 035 167<tel:%2B%20232%2079%20035%20167>

Office +1 212 326 7400<tel:%2B1%20212%20326%207400>

Skypename: paul.pronyk

http://ebolaresponse.me<http://ebolaresponse.me/>

--

Luis M Branco, Ph.D. AutoImmune Technologies, LLC 200 Henry Clay Ave., New Orleans, LA 70118 &

Tulane University Health Science Center 1430 Tulane Avenue, JBJ Building, Rm 557, New Orleans, LA 70112

<u>lbranco08@gmail.com</u><mailto:<u>lbranco08@gmail.com</u>>

504-444-7047<tel:504-444-7047>

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA Phone: 303-775-7752

mboisen@corgenix.com<mailto:mboisen@corgenix.com>

Development Director - In Vitro Diagnostics
Viral Hemorrhagic Fever Consortium
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Conferencing Center Dial-in: 1-877-805-0965 Passcode: 5769227 __

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|branco08@gmail.com
504-444-7047
<nejmoa1411677.pdf>

--

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&
Tulane University Health Science Center
1430 Tulane Avenue, JBJ Building, Rm 557, New Orleans, LA 70112

lbranco08@gmail.com
504-444-7047

Date: 12/1/2014 11:01:31 AM From: "Cross, Robert W."

To: "Bausch, Daniel CIV" Daniel.Bausch@med.navy.mil

Subject: RE: NIH LRP LOR...again...

Thanks man!

----Original Message----

From: Bausch, Daniel CIV [mailto:Daniel.Bausch@med.navy mil]

Sent: Monday, December 01, 2014 10:45 AM

To: Cross, Robert W.

Subject: RE: NIH LRP LOR...again...

Done. Good luck.

D.

----Original Message-----

From: Cross, Robert W. [mailto rwcross@UTMB.EDU]

Sent: Monday, December 01, 2014 9:55 AM

To: Bausch, Daniel CIV

Subject: RE: NIH LRP LOR...again...

Hey Dan,

Terribly sorry to bug on this, but the deadline to submit the LOR for this LRP application is today at 5pm eastern time.

I'm hoping that their email system has been able to get messages to you, otherwise I may have to get you to forward directly to their office. If you haven't gotten any emails from them, let me know and I'll see if I can fix that.

Thanks again, I know now is a busy time for you so I really appreciate the time taken on this.

Bob

From: Bausch, Daniel CIV [mailto:Daniel.Bausch@med.navy mil]

Sent: Sunday, November 16, 2014 9:19 AM

To: Cross, Robert W.

Subject: Re: NIH LRP LOR...again...

Hi Bob,

Happy to serve as a reference.

Yes, frederique is in Liberia (while I have become a Geneva and Washington bureaucrat--in Geneva this week).

Say ho to everyone in Kenema for me.

D

Daniel Bausch, MD, MPH&TM

Head, Virology and Emerging Infections Department U.S. Naval Medical Research Unit No. 6 Lima,

Associate Professor

Tulane School of Public Health and Tropical Medicine New Orleans, USA

From: Cross, Robert W. [mailto rwcross@UTMB.EDU]

Sent: Sunday, November 16, 2014 03:35 PM

To: Bausch, Daniel CIV

Subject: NIH LRP LOR...again...

Hey Dan,

Hope you are well my friend! Writing from KGH, here working on rapid diagnostics at LASV/EBOV lab with the Tulane crew for the week. Have been talking with Armand at GOARN about possibly returning in January as support on the lab side of things, we'll see how that develops.

So I first want to thank you for the shining LOR you wrote for me last year for my NIH LRP application. I didn't, unfortunately, get awarded this year due to lack of adequate number of publications...but this has since changed and I've been encouraged to apply again this year.

Would you have any issue with my putting you on as a reference again? Your part won't be due until December 1, and I'll forward you my most recent CV for review. I'm sure you could submit something very similar to last year's letter with maybe a slight update here and there.

I've heard Frederique is in Liberia now?

Best and Thanks for considering the LOR,

Bob

Robert W. Cross, Ph.D., MP.H.

Post Doctoral Fellow: Geisbert Lab

Galveston National Laboratory

Rm. 5.324

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825

O:409-266-6594

rwcross@utmb.edu

Date: 12/1/2014 1:55:19 PM From: "Cross, Robert W."

To: "Bausch, Daniel CIV" Daniel.Bausch@med.navy.mil

Subject: RE: NIH LRP LOR...again...

Exactly, I was thinking Sprecher....but Schieffelin thinks it's someone else since we thought Sprecher was with MSF. Maybe a dual appointment thing. I'm supposed to meet with Ksiazek and Leduc tomorrow about the return mission...may get more info then.

If I get the green light from UTMB to go, I'll be in Geneva for their hands on training session and briefing, would be good to connect if you are in country.

Whoever it is they are signing as:

"Armand on behalf of GOARN Operational Support Team

Global Outbreak Alert and Response Network Global Capacities, Alert and Response World Health Organization Avenue Appia 20 1211 Geneva 27, Switzerland"

b

----Original Message-----

From: Bausch, Daniel CIV [mailto:Daniel.Bausch@med.navy mil]

Sent: Monday, December 01, 2014 1:49 PM

To: Cross, Robert W.

Subject: RE: NIH LRP LOR...again...

Armand who?

D.

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

From: Cross, Robert W. [mailto rwcross@UTMB.EDU] Sent: Wednesday, November 26, 2014 4:00 PM

To: Bausch, Daniel CIV

Subject: RE: NIH LRP LOR...again...

Man, Salone is no doubt different...uncomfortably quiet. I really hope this can get under control soon.

Thanks for the help on the LRP, again. I'm hoping to knock it out of the park this year with my application. Attached is most recently updated CV with Salone activities included for review. Also may be returning to the area in the new year as a part of UTMB's contribution to WHO GOARN efforts as a laboratory coordinator...have been talking with a guy named Armand about it. Hoping this goes through, maybe put in the good word if you know him?

Talk with you soon!

Bob

From: Bausch, Daniel CIV [mailto:Daniel.Bausch@med.navy mil]

Sent: Sunday, November 16, 2014 9:19 AM

To: Cross, Robert W.

Subject: Re: NIH LRP LOR...again...

Hi Bob,

Happy to serve as a reference.

Yes, frederique is in Liberia (while I have become a Geneva and Washington bureaucrat--in Geneva this week).

Say ho to everyone in Kenema for me.

D

Daniel Bausch, MD, MPH&TM

Head, Virology and Emerging Infections Department U.S. Naval Medical Research Unit No. 6 Lima, Peru

Associate Professor

Tulane School of Public Health and Tropical Medicine New Orleans, USA

From: Cross, Robert W. [mailto rwcross@UTMB.EDU]

Sent: Sunday, November 16, 2014 03:35 PM

To: Bausch, Daniel CIV

Subject: NIH LRP LOR...again...

Hey Dan,

Hope you are well my friend! Writing from KGH, here working on rapid diagnostics at LASV/EBOV lab with the Tulane crew for the week. Have been talking with Armand at GOARN about possibly returning in January as support on the lab side of things, we'll see how that develops.

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I've heard Frederique is in Liberia now?

Best and Thanks for considering the LOR,

Bob

Robert W. Cross, Ph.D., MP.H.

Post Doctoral Fellow: Geisbert Lab

Galveston National Laboratory

Rm. 5.324

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825

O:409-266-6594

rwcross@utmb.edu

Date: 10/28/2014 2:03:11 PM From: "Cross, Robert W."

To: "Mambu Momoh" mambumomoh@gmail.com, "Schieffelin, John S" jschieff@tulane.edu, "Robert Garry" rfgarry@tulane.edu, "Lina Moses" lmoses2@tulane.edu, "simbirie jalloh" simbiriej5@gmail.com, "Matt Boisen" mboisen24@gmail.com, "S M Gevaosm" gevaosm@yahoo.com, "Kristian Andersen" kandersen@oeb.harvard.edu

Cc: "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com, "Bishop, Christopher M" cbishop@tulane.edu, "Jessica Hartnett" j.n.grove@gmail.com, "Augustine Goba" augstgoba@yahoo.com

Subject : RE: piccolo

Just confirmed with several regular piccolo users here... These are self-calibrating instruments, the calibration occurs within each disk. However, some things that can go wrong include heating element or centrifugal components. If these instruments have been used hard for a long time, just like anything with moving parts....they wear out. Also, these things are particularly sensitive to power fluctuations, so if they aren't hooked to an UPC of some level, you may end up frying the instruments when you get "generator kicks".

Otherwise, we should be able to update the instruments upon arrival. Not sure about the touch screen issues, might also be a normal wear thing.

BC

From: Mambu Momoh [mailto:mambumomoh@gmail.com]

Sent: Tuesday, October 28, 2014 1:09 PM

To: Schieffelin, John S; Robert Garry; Lina Moses; simbirie jalloh; Matt Boisen; S M

Gevaosm; Kristian Andersen

Cc: Luis Branco - ZalgenLabs.com; Cross, Robert W.; Bishop, Christopher M; Jessica

Hartnett; Augustine Goba **Subject:** Re: piccolo

The newest Piccolo xpress chemistry analyzer model no. 1100-1000, cat No. 1100-0000.

For the other two piccolo machines also needs software update or calibration as they are presently showing screen touch stiffness added to their high readings of some parameters. Luis for the coolness, there is much improvement on this with Simbirie having fixed the problems of the two lab ACs where we can now use the Piccolo machines conveniently.

unfortunate that the Lassa ward here in kenema is still undergoing decontamination process as we push very hard for it to be up and running. Let me know if you have more questions and hope to see you soon.

552.111 throughout

Thanks, Mambu

On Tue, Oct 28, 2014 at 9:06 AM, Schieffelin, John S < jschieff@tulane.edu > wrote:

That's weird as I was told we once got a "needs calibration" error message.

--

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
Sections of Infectious Disease
Tulane University School of Medicine
1430 Tulane Ave TB-8
New Orleans, LA 70112
jschieff@tulane.edu
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: "Luis Branco - ZalgenLabs.com" < | branco@zalgenlabs.com >

Date: Tuesday, October 28, 2014 9:52 AM
To: "Cross, Robert W." < rwcross@utmb.edu>

Cc: john schieffelin <jschieff@tulane.edu>, Mambu Momoh

<mambumomoh@gmail.com>, "Bishop, Christopher M" <cbishop@tulane.edu>, Jessica

Hartnett < j.n.grove@gmail.com>, Augustine Goba < augstgoba@yahoo.com>

Subject: Re: piccolo

Correct, self validating discs, so every run is validated.

I've updated the Piccolo Express instruments a number of times.

No, no scanner in the hot lab to my knowledge.

On Tue, Oct 28, 2014 at 10:26 AM, Cross, Robert W. < wcross@utmb.edu > wrote: There is a scanner in the hot lab yes?

Sent from mobile

On Oct 28, 2014, at 9:25, "Cross, Robert W." <rwcross@UTMB.EDU> wrote:

They typically are self calibrating per disc. IE, internal validation a per assay. But we use them regularly and so I can check with Joan on this to be double sure.

Sent from mobile

On Oct 28, 2014, at 9:00, "Schieffelin, John S" <jschieff@tulane.edu> wrote:



Augustine and Mambu, can you send us the serial number and model of the newest piccolo?

Luis and Bob, do either of you know how to callibtrate the piccolo?

John

-

John S. Schieffelin, M.D., M.S.P.H. Assistant Professor of Pediatrics and Internal Medicine Sections of Infectious Disease
Tulane University School of Medicine
1430 Tulane Ave TB-8
New Orleans, LA 70112
jschieff@tulane.edu
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: "Luis Branco -

ZalgenLabs.com" < lbranco@zalgenlabs.com > Date: Tuesday, October 28, 2014 7:52 AM

To: Mambu Momoh <<u>mambumomoh@gmail.com</u>>
Cc: john schieffelin <<u>jschieff@tulane.edu</u>>, "Bishop,
Christopher M" <cbishop@tulane.edu>, Jessica Hartnett

<j.n.grove@gmail.com>, Augustine Goba

augstgoba@yahoo.com>

Subject: Re: piccolo

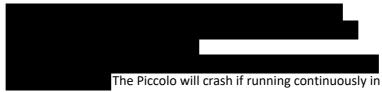
ok, we need firm details here.

Is the Harvard machine also a Piccolo express?

What we are bringing is the updated software for Tulane's Piccolo express.

If the Harvard instrument is different we need to know the brand, serial number, any other details that should be passed along to the Harvard folks so we can also update it.

Are we ok on Piccolo discs?



the heat. I assume we can't have fans in the lab?

Luis

On Tue, Oct 28, 2014 at 8:00 AM, Mambu Momoh mambumomoh@gmail.com wrote:

All the Piccolo machines do power up, the problem with the two i think had been calibrations, the old GVF machine can't display some values and both of them also we noticed of giving too much high values of some parameters. I think Dr Schieffelin should be aware of this when he was here with some WHO Doctors, I remembered we spoke about the readings. Power goes in all of them and always come on well.

I agree with Luis that the Newest machine from Harvard needed a software update due to the error message as rightly coated by Him.

Thanks, Mambu

On Mon, Oct 27, 2014 at 12:24 PM, Luis Branco - ZalgenLabs.com < lbranco@zalgenlabs.com > wrote:

Just for clarification I had heard that one Piccolo did not power up. Not sure if it's Tulane's or the old DOD machine. If we run Piccolo we need to know if at least one instrument is operational.

Augustine or Mambu, can you confirm?

Thanks, Luis

On Mon, Oct 27, 2014 at 2:37 PM, Luis Branco - ZalgenLabs.com lbranco@zalgenlabs.com> wrote:

If the Piccolo is powering up as normal, but displays error 4115 when running a disc it simply means that the firmware needs to be updated.

A CD-ROM is on its way from Abaxis, 2-day delivery to JBJ 557. This should fix the problem, with version 2.1.39, recently released.

Luis

On Mon, Oct 27, 2014 at 2:20 PM, Luis Branco - ZalgenLabs.com | branco@zalgenlabs.com > wrote:

It came from me, I passed it along to Chris and Jess.

No worries, I'm on it

On Mon, Oct 27, 2014 at 2:03 PM, Schieffelin, John S < jschieff@tulane.edu> wrote: Luis,

Could you do me a huge favor and check into a piccolo error message for me? Here is the query from Mambu (or perhaps it came from you).

Piccolo Machine serial no P04430 to get updated software with error message 4115, updated Disc type Best way to deal with this is to call Abaxis, give them serial number, error message. and ask about fix. Please take care of this soon, as they will most likely have to mail a CD-ROM with updated software

John

--

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
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--

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--

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__

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--

Luis M Branco, Ph.D. Co-Founder, Zalgen Labs, LLC 20271 Goldenrod Lane, Suite 2083 Germantown, MD 20876 504-444-7047 (cell) 504-252-0889 (main) Ibranco@zalgenlabs.com Date: 9/6/2013 1:36:09 AM From: "Cross, Robert W."

To: "Lina Moses" linammoses@gmail.com

Subject: Re: PRO/AH/EDR> Lassa fever - Sierra Leone: (SO), RFI

What a mess...

Sent from mobile

On Sep 6, 2013, at 0:49, "Lina Moses" < linammoses@gmail.com > wrote:

Boom. Promed.

----- Forwarded message -------From: promed-edr@promedmail.org>
Date: Fri, Sep 6, 2013 at 12:10 AM

Subject: PRO/AH/EDR> Lassa fever - Sierra Leone: (SO), RFI

To: promed@promedmail.chip.org, promed-ahead@promedmail.chip.org,

promed-edr@promedmail.chip.org

LASSA FEVER - SIERRA LEONE: (SOUTHERN), REQUEST FOR INFORMATION

A ProMED-mail post

http://www.promedmail.org
ProMED-mail is a program of the
International Society for Infectious Diseases
http://www.isid.org

Date: Sat 31 Aug 2013 Source: All Africa [edited]

http://allafrica.com/stories/201309020391.html

A report reaching Concord Times indicated that a number of staff of Medicine San Frontiers (MSF) have allegedly died of Lassa fever in the municipality of Bo [Southern Province].

The report stated that a nurse, driver and a community health officer, alongside her 2 children, lost their lives after being allegedly infected with the disease; a situation which has left some section of the Bo population worried.

MSF's project coordinator in Bo, John Mark, told Concord Times in an interview that they were doing all they could to curb the infection and death rate among their staff.

"It is really difficult to ascertain whether it is our staff or

patients brought to the referral clinic that are responsible for this dreadful disease," Mark said. "Suspected Lassa fever patients' blood specimens are usually taken to the Kenema government hospital Lassa department for testing, and if proven positive or infected, they (staff) will be transferred to Kenema for treatment."

He maintained that their nurses at the Gondama clinic use preventive measures and gear to keep themselves free from the Lassa fever disease and any other dreadful disease(s).

[Byline: Problyn J. Alpha]

--

Communicated by:

ProMED-mail from HealthMap Alerts

promed@promedmail.org>

[Lassa fever virus (LFV) is endemic in West Africa, although ProMED-mail has not received reports of cases there since 2010. Lassa fever has not as yet been confirmed in these individuals. More information on the results of laboratory tests for LFV would be greatly appreciated.

Presuming these individuals do have Lassa fever, it is not clear if these unfortunate victims acquired their LFV infections in the hospital or elsewhere, probably from environments contaminated by the multimammate rodent reservoir host. LFV infections are usually not fatal; some 80 per cent of human infections are asymptomatic. Non-fatal cases may have severe multisystem disease, where the virus affects several organs such as the liver, spleen, and kidneys. The incubation period of Lassa fever ranges from 6 to 21 days. More detailed information can be accessed at http://www.who.int/csr/disease/lassafever/en/.

A photograph of a _Mastomys_ multimammate rat can be viewed at http://ec.europa.eu/research/rtdinfo/special inco/03/images/art07 02 3759.jpg>.

The HealthMap/ProMED-mail interactive map of Sierra Leone is available

at http://healthmap.org/r/8jOJ. - Mods.TY/MPP]

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List-Unsubscribe: http://ww4.isid.org/promedmail/subscribe.php

Date: 12/18/2014 10:00:16 PM From: "Cross, Robert W."

To: "Matt Boisen" mboisen24@gmail.com, "Robert Garry" rfgarry@tulane.edu, "Luis Branco" lbranco08@gmail.com

Subject: RE: qRT-PCR



From: Matt Boisen [mboisen24@gmail.com] **Sent:** Thursday, December 18, 2014 9:43 PM **To:** Robert Garry; Cross, Robert W.; Luis Branco

Subject: qRT-PCR

Hey Bob, Bob, and My name is Doug;-)



Just trying to sort data before I export to statistical program

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp.

11575 Main Street, Suite 400

Broomfield, CO 80020 USA

Phone: 303-775-7752 mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

Conferencing Center

Dial-in:1-877-805-0965 Passcode: 5769227 Date: 10/20/2014 10:02:14 AM From: "Cross, Robert W."

To: "'Marzi, Andrea (NIH/NIAID) [E]'" marzia@niaid.nih.gov

Subject: RE: Salone trip question

```
My cell is
----Original Message----
From: Marzi, Andrea (NIH/NIAID) [E] [mailto marzia@niaid.nih.gov]
Sent: Saturday, October 18, 2014 7:20 PM
To: Cross, Robert W.
Subject: Re: Salone trip question
Sounds good!
> On Oct 18, 2014, at 5:46 PM, Cross, Robert W. <a href="mailto:rwcross@UTMB.EDU">rwcross@UTMB.EDU</a> wrote:
> Sounds good... Lets plan to talk Monday sometime.
> All the best,
> B
> From: Marzi, Andrea (NIH/NIAID) [E] [marzia@niaid nih.gov]
> Sent: Saturday, October 18, 2014 6:42 PM
>To: Cross, Robert W.
> Subject: Re: Salone trip question
> Hi Bob!
> Great to hear from you. Sierra Leone! Great!!!!
> I'm heading back to Liberia oct 30, staying a month. We should talk soon - way too many things to
put in an email. When would work for you?
> I'm busy tonight, tomorrow afternoon&evening, happy to talk any other time. Just let me know!
> Andrea
> On Oct 18, 2014, at 4:36 PM, Cross, Robert W.
<rwcross@UTMB.EDU<mailto:rwcross@UTMB.EDU>> wrote:
> Hi Andrea.
> Hope you don't mind my contacting you, but I think you might be able to help me with a question.
Since I've been to the area and have a more than fair level of field/lab experience, I've been offered an
opportunity to travel to Kenema for a validation of rapid diagnostic tests developed by Tulane. My
visit will be short, 2 weeks mid-Nov.
> I'm about 80% sold on the idea of going, but am a little nervous about the prospect of having to deal
with a 21 day self quarantine. This could end up being a difficult thing for me to deal with on multiple
levels. Are you guys implementing anything like that?
> Also, there is rumor that you are heading back sometime soon. It may be good for us to keep in
contact if it turns out that I end up going.
>Talk with you soon,
> Bob
```

```
> Robert W. Cross, Ph.D., MP.H.
> Post Doctoral Fellow II: Geisbert Lab
> Galveston National Laboratory
> Rm. 5.324
> Department of Microbiology and Immunology
> University of Texas Medical Branch
> 301 University Boulevard
> Mail Route: 10610
> Galveston, Texas 77555-0610
> L: 409-266-6825
> O:409-263-6904
> rwcross@utmb.edu<mailto:rwcross@utmb.edu>
> Section of the property of
```

Date: 11/7/2014 7:10:51 AM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Subject : Re: samples

Thanks man, I'll document as much as possible for sure. Drive safe!

Bob

Sent from mobile

On Nov 7, 2014, at 6:56, "Geisbert, Thomas W." <twgeisbe@UTMB.EDU> wrote:

Probably Lisa Hensley at IRF. So yes I can talk to Bob. May be best by phone may have to send e-mail for now as we are heading to West Texas as soon as we are done the NHPs this morning. Been over a month since we have been to the ranch and need to take care of some things. So will miss your event but have a safe trip. Please take some pictures. I know there are sensitivities with that but would be great to have some things.

Tom

From: Cross, Robert W.

Sent: Thursday, November 06, 2014 11:05 PM

To: Geisbert, Thomas W. Subject: FW: samples Importance: High

Hey Tom,

Apparently Pardis Sabeti has made promises to get hot samples for NIH from Kenema as well and I'm concerned that this may cause issue with our being able to ship these samples out by doing so. As you know, this was a major thrust for me being given permission to go on this trip from UTMB to orchestrate this shipment and am a little distressed that this is coming to the surface at the last minute.

I hate to ask for this, but it may be time for a call to Bob Garry make sure he is still on board to ensure we are going to be able to ship these back. It would be unfortunate to miss this opportunity to get these samples back because of some possible miscommunications on the matter.

Per the late night email stream below, John Schieffelin is on board to make sure we are the ones getting them, especially considering we are the ones going to set everything up. We'll need to draft a letter using the template attached. I thought this had already been done, but apparently it has not. Maybe this is something that both you and Bob G should draft together since this is a mufti-university prospect?

Bob

From: Schieffelin, John S [jschieff@tulane.edu]
Sent: Thursday, November 06, 2014 10:46 PM

To: Cross, Robert W. Subject: Re: samples

We'll make it work as we are the ones going. I'm not sure World Courier will come to Kenema these days due to the road blocks. We'll make it happen though.

Could you do me a favor and draft a letter requesting permission to ship? A sample letter is attached. The name of the protocol we will be working under is called:

Epidemiologic and clinical characterization of an Ebola virus outbreak

This protocol has been approved at Tulane and in SL.

Best to explain in the letter that shipping the samples back to the states is needed to conduct something that will help us learn more about EBOV and end the outbreak and/or prevent the next one.

--

John S. Schieffelin, M.D., M.S.P.H.
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1430 Tulane Ave TB-8
New Orleans, LA 70112
jschieff@tulane.edu
(504) 988-5117 (office)
(504) 988-2613 (fax)

From: <Cross>, "Robert W." rwcross@UTMB.EDU>
Date: Thursday, November 6, 2014 11:37 PM
To: john schieffelin jschieff@tulane.edu>

Subject: RE: samples

Yes World Courier. I've already lined up the permits. I will just need to send volumes and tube id's. I believe that world courier will pick up from kenema.

I truly hope that we can make this work, this could be a mess otherwise....

b

From: Schieffelin, John S [jschieff@tulane.edu]
Sent: Thursday, November 06, 2014 10:24 PM

To: Cross, Robert W. **Subject:** Re: samples

We can talk about Pardis' intentions over a few drinks. What we really need to do is squeeze Bob G and figure out if he ever submitted anything to SLESRC and MOHS to transport the samples. Good news

552.111

is that we are the ones going and doing the packing and shipping. Can you work on the US permits needed to ship these things? How do we ship? World Courier?

--

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(504) 988-2613 (fax)

From: <Cross>, "Robert W." <<u>rwcross@UTMB.EDU</u>>
Date: Thursday, November 6, 2014 11:20 PM

To: john schieffelin <jschieff@tulane.edu>

Subject: RE: samples

Yeah, this is going to be a mess if we don't get it figured out. One of the main reasons UTMB let me go was to get these samples. And I really had to have heaven and earth moved to do so, (ie president of UTMB and UT health systems had to sign off on me).

The email where Bob agreed is copied below. We absolutely need to get this figured out so that we don't cross the streams on this and look like jackasses to MOH.

I really don't understand how Pardis is even involved in getting hot samples anyway, much less why they are being sent to folks outside of VHFC.

В

From: Garry, Robert F [rfgarry@tulane.edu]
Sent: Monday, October 20, 2014 10:05 AM

To: Cross, Robert W.

Subject: Re: Sierra Leone R/D Mission

Bob - YES on all.

I'll work on the letter.

From: <Cross>, "Robert W." <<u>rwcross@UTMB.EDU</u>>

Date: Monday, October 20, 2014 10:03 AM **To:** Robert Garry < rfgarry@tulane.edu>

Cc: "Geisbert, Thomas W." <twgeisbe@UTMB.EDU>, "Luis Branco -

ZalgenLabs. com" < lbranco@zalgenlabs.com>

Subject: Sierra Leone R/D Mission

Hi Dr. Garry,

I've gotten most of the permissions from my end to be able to go on the trip. I have a some questions that I'm hoping you can help me with before giving the final YES. Numbered by importance...Sorry for the length.

1. **Self Quarantine upon return:** Similar to Luis, I have a potential need for self-quarantine

552.117

ensure no contact until after the standard incubation period then she will not be affected professionally and no unnecessary drama otherwise will be created. Should it be necessary, do you think it possible that the grant could cover some level of reasonably priced hotel room for me for this purpose when I return? UTMB does not currently have a self-quarantine requirement in place, this is just to appease my family.

- 2. **Travel Expenses:** All travel expenses and per diems are covered by the grant through Tulane, correct?
- 3. Travel Visa: I'll need a sort of generic mission statement on letterhead to send in for getting my visa set up as soon as feasible. This will need to state all the members on the team, the timeframe, places we will go and a general mission statement as to the reason for travel (I'm sure you've got a form letter of some type by now for this).
- 4. Samples for virus isolation at UTMB: I am still confirming this, but I believe there is a funding mechanism here at UTMB to cover the cost of having World Courier (or equivalent) ship back samples for virus isolation. My being on the ground coupled to the accessing of these samples for testing may be a good time to pull aliquots for sending to UTMB, for both LASV and EBOV. We can make arrangements for World Courier to do the pick-up. Do you think this is something we can try to do? We are at the ready for paperwork/permits on our end, but I think we may still need permissions from MOH? At minimum, we could possibly segregate some of these samples and have them ready to ship for when the appropriate in country permissions come through.

Thoughts? Bob Cross

DOD CIOSS

Robert W. Cross, Ph.D., MP.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu From: Schieffelin, John S [jschieff@tulane.edu]
Sent: Thursday, November 06, 2014 10:09 PM

To: Cross, Robert W. **Subject:** samples

Glad this came up now before shipping. I'll push Bob G. Best if you could get Tom to push Bob as well. If Pardis arranges for them to go to the NIH, we will never see them again. And those who worked their tails off at the site to make the sample collection possible will never get credit.

--

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(504) 988-2613 (fax)

Date: 4/16/2014 2:42:14 PM From: "Cross, Robert W."

To: "Ntiforo, Corrie" contifor@UTMB.EDU

Cc: "Moses, Lina M" lmoses2@tulane.edu, "linammoses@gmail.com" linammoses@gmail.com, "Geisbert, Thomas W." twgeisbe@UTMB.EDU,

"Mire, Chad" chmire@UTMB.EDU

Subject: RE: Shipment

Hi Lina,

This email is to bring all the UTMB folks up to date per our impromptu skype chat this morning.



A window of time has opened up this weekend that will allow Lina get the shipment together for us including an inventory list with tube identifiers and volumes so that we can get the Form 2 filled and submitted. She will have it to us by early next week.

Thanks,

Bob

From: Ntiforo, Corrie

Sent: Thursday, March 27, 2014 8:17 AM

To: Cross, Robert W.

Cc: Moses, Lina M; linammoses@gmail.com; Geisbert, Thomas W.; Mire, Chad

Subject: RE: Shipment

Absolutely!

Corrie Ntiforo

----- Original message ------

From: "Cross, Robert W."

Date:03/27/2014 8:15 AM (GMT-06:00)

To: "Ntiforo, Corrie"

Cc: "Moses, Lina M", linammoses@gmail.com, "Geisbert, Thomas W.", "Mire,

Chad"

Subject: Re: Shipment

We can still put in for the diagnostic permits though, correct?

Bob

Sent from mobile

On Mar 27, 2014, at 8:08, "Ntiforo, Corrie" <contifor@UTMB.EDU> wrote:

All, just an update, Dee would like to hold off on submitting the Form 2 until we know for sure we are ready for shipment. Once we have approval we only have 30 days to send and receive the package, so we would like to avoid canceling/resubmittals if possible.

Once the form 2 is submitted it takes less than 48 hours to receive approval.

So as soon as everything is ready for packing let us know and we will submit.

Corrie

From: Moses, Lina M [mailto:lmoses2@tulane.edu]

Sent: Tuesday, March 25, 2014 2:36 AM

To: Cross, Robert W.; Ntiforo, Corrie; linammoses@gmail.com

Cc: Geisbert, Thomas W. **Subject:** RE: Call with Corrie

Bob, sounds like a good plan. When I get back to Kenema tomorrow, I will lean on Augustine and recruit Dr. Khan to put some muscle in as well. He wants these samples out as soon as possible.

Corrie, here is the information you requested:

- Entity Name: Kenema Government Hospital Lassa Fever Laboratory
- Complete Address: Combema Road, Kenema, Sierra Leone
- Facility Director: Augustine Goba
- Facility Director Telephone #232 76 757 859
- Facility Director Fax # (if you have one): None
- Facility Director email address: augstgoba@yahoo.com

I accidentally deleted Chad Mire from this email, but can't pull up his email with the slow internet. Can you please forward? Thanks. Lina

From: Cross, Robert W. < <u>rwcross@UTMB.EDU</u>>

Sent: Monday, March 24, 2014 8:56 PM

To: Ntiforo, Corrie; Moses, Lina M; linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad

Subject: RE: Call with Corrie

Hey Lina:

A couple more small, but important, points to add to Corrie's request below.

After some discussion on this end, it appears the easiest and most logical way to do this will be for us to submit a Form 2 (SA) permit request. To hedge our bets for future work, we'll also be submitting for an ongoing permit for diagnostics (for relevant VHFs) that will carry us through the year and help with subsequent, non-confirmed samples. Once you provide the info below Corrie will submit this week.

For now, the goal is still currently to combine the shipment of PCR positive LASV samples and the more recent suspect samples using the Form 2 permit as it appears we'll have the best and fastest success rate with this. This being said, in addition to the information below, we will still need to get the final inventory with volume estimates before we can pack the box for shipment. Maybe an idea to apply a little gentle pressure to Augustine to complete this for us. It will be important that these samples do not have relevant health ID information (ie we have to be blinded) on the tubes outside of unique identifiers coded by your side. Otherwise we will need IRB approvals, which to my knowledge, we specifically do not have for these types of samples. Finally, it is advised that we try to keep the total volume for the shipment under 50mls total so that we will not be restricted to "cargo" only flights, having options for puddle jumpers might not be a bad thing so these samples don't end up sitting waiting on the next flight in, which as we know could be up to an additional week depending on timing. So if we have to break up shipments, I don't think this would necessarily be a bad thing. This would also help to ensure that if anything went wrong with the shipment, we wouldn't lose "everything".

I understand there are some internal approvals necessary with the Ministry Ethics committee, so getting us the info below ASAP will help to get the process started on our end so that once your letter is in hand we can (hopefully) already have the majority of the permit process complete on this end and hopefully get these samples on their way.

Once every T is crossed and I is dotted, we can provide you the UTMB World Courier account information, and you can arrange shipment out of Freetown at your earliest convenience. Let us know if any of these last two notes are unclear and we will do our best to make sure we clarify everything properly to make sure we are all on the same page and doing this all by the book.

Talk with you soon,

Bob C.

From: Ntiforo, Corrie

Sent: Monday, March 24, 2014 8:13 PM

To: Cross, Robert W.; Moses, Lina M; linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad

Subject: RE: Call with Corrie

In order to get the ball rolling on the CDC form 2 permit, we will need the following senders information:

- Entity Name
- · Complete Address
- Facility Director
- Facility Director Telephone #
- Facility Director Fax # (if you have one)
- Facility Director email address

Generally it takes 24-48 hrs to receive approval, however, we will make a call once we submit the form 2 to speed things along.

Corrie

From: Cross, Robert W.

Sent: Monday, March 24, 2014 3:03 PM **To:** Moses, Lina M; linammoses@gmail.com

Cc: Geisbert, Thomas W.; Mire, Chad; Ntiforo, Corrie

Subject: RE: Call with Corrie

No problem, I'll send you a list of what we will need from you informationwise for us to get the necessary permits and enable shipment shortly. If you can get any material from this additional case added, that would be ideal.

Be careful out there!

Bob

From: Moses, Lina M [mailto:lmoses2@tulane.edu]

Sent: Monday, March 24, 2014 2:50 PM **To:** Cross, Robert W.; linammoses@gmail.com

Subject: RE: Call with Corrie

Hey. Sorry in the middle of no where trying to track down the ebola case. We found it!!! Heading to the village tomorrow.



You can call now or anything in the next couple of hours if you need.

Lina

From: Cross, Robert W. <rwcross@UTMB.EDU>

Sent: Sunday, March 23, 2014 4:45 PM
To: linammoses@gmail.com; Moses, Lina M

Subject: Call with Corrie

Hey there,

We will try to call you again sometime between 11-1 central US; 4-6pm Salone time.

Will that work for you?

Bob

Date: 5/28/2014 11:31:12 AM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "Mire, Chad"

chmire@UTMB.EDU

Subject: RE: Sierra Leone: Ebola Virus Spreads From Guinea

This story has been popping up all over pro-med as well. With as transient as folks in that area are...not to mention the relative fluidity of the borders, not too entirely surprising this happened.

I'd predict at least a couple more months minimum until we can be sure this is over.

Sure is going to make the Kenema lab look good being part of this.

From: Geisbert, Thomas W.

Sent: Wednesday, May 28, 2014 11:14 AM

To: Mire, Chad; Cross, Robert W.

Subject: Sierra Leone: Ebola Virus Spreads From Guinea

http://www.nytimes.com/2014/05/28/world/africa/sierra-leone-ebola-virus-

spreads-from-guinea.html?_r=0

Date: 10/23/2014 11:02:20 AM From: "Cross, Robert W."

To: "'Kristian Andersen'" kga1978@gmail.com, "'Schieffelin, John S'"

jschieff@tulane.edu

Cc: "'Moses, Lina M'" lmoses2@tulane.edu, "'lbranco@zalgenlabs.com'" lbranco@zalgenlabs.com, "'Garry, Robert F'" rfgarry@tulane.edu, "'Jessica

Hartnett'" j.n.grove@gmail.com

Subject: RE: SL Lab SOP

Yep, Biosafety was the question. Will contact Augustine for it.

Thanks!

RWC

From: Kristian Andersen [mailto:kga1978@gmail.com]

Sent: Thursday, October 23, 2014 10:29 AM **To:** Schieffelin, John S; Cross, Robert W.

Cc: Moses, Lina M; Ibranco@zalgenlabs.com; Garry, Robert F; Jessica Hartnett

Subject: Re: SL Lab SOP

What type of SOPs are we talking? I have SOPs for RNA extraction, AVL addition, etc. - if we're talking Biosafety SOPs, then they're on the computer in the lab there. I made those with Augustine, so he has access to them and could probably get them off the computer.

Κ

From: Schieffelin, John S <jschieff@tulane.edu>
Reply: Schieffelin, John S <jschieff@tulane.edu>>

Date: October 23, 2014 at 11:18:56 AM
To: Cross, Robert W. rwcross@utmb.edu>

Cc: Garry, Robert F <rfgarry@tulane.edu>>, lbranco@zalgenlabs.com

, Moses, Lina M , Jessica Hartnett , Kristian Andersen <a href="mailto:scom"

Subject: Re: SL Lab SOP

I think Kristian put one together. I've looped him in so he can respond.

Kristian, SOP for Kenema Lab?

--

John S. Schieffelin, M.D., M.S.P.H.
Assistant Professor of Pediatrics and Internal Medicine
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(504) 988-5117 (office)
(504) 988-2613 (fax)

From: <Cross>, "Robert W." <<u>rwcross@UTMB.EDU</u>>
Date: Wednesday, October 22, 2014 10:33 AM
To: john schieffelin <<u>jschieff@tulane.edu</u>>
Cc: "Garry, Robert F" <<u>rfgarry@tulane.edu</u>>,

"<u>lbranco@zalgenlabs.com</u>" <<u>lbranco@zalgenlabs.com</u>>, "Moses, Lina M" <<u>lmoses2@tulane.edu</u>>, <u>Jessica Hartnett</u> <<u>j.n.grove@gmail.com</u>>

Subject: SL Lab SOP

Hey John or Dr. G,

I know this may be an odd question, but is there an SOP available for the for the hot labs in Salone? Not mandatory for me to go, just investigating.

Thanks!

Bob C.

Date: 10/19/2014 10:56:08 PM From: "Cross, Robert W."

To: "Trevor Gale" trevorvgale@gmail.com

Subject: RE: TEER

Attachment: image001.png;

Things are good, Very busy times as I'm sure you can imagine.

I've started some conversations with my immediate supervisor but haven't chatted with Tom yet....but I can say it will likely be doable, I just can't guarantee exactly a timeline for you just yet. We will have to discuss some experimental approaches first to try to do this as efficiently as possible. I think there is at least a couple of experiments we can do in support of your work. It will likely just have to wait til all the outbreak excitement dies down a little.

Regarding NHP Sera: Some major changes are afoot with how things come out of the BSL4 for subsequent shipping, so getting you some animal sera could take some time but may be possible eventually.

Regarding working in the 4: We typically do not bring in outside folks to the BSL4 without extensive BSL4 experience. I wish it were an easy thing to just drive over and put a suit on but the training situation is a little more complicated. Some perspective.... it takes an average of 2-2.5 years for our own students to get cleared to even start their BSL4 training. Even then, they are under strict supervision and have relatively severe limitations on what they can and can't do in the lab. For the sake of progress, I'd say we just have me do the work for now.

Regarding your proposal: My recommendation -off the cuff- would be to keep this simple at first, do a little homework on the mechanism on how you think this should be tested then propose the idea with some level of specifics. I'll help you shape it from there within the scope of my faculties....

Best,

Bob

From: Trevor Gale [trevorvgale@gmail.com] **Sent:** Friday, October 17, 2014 8:55 AM

To: Cross, Robert W. **Subject:** Re: TEER

Dr. Cross,

Sorry to pester you. Have you had a chance to talk with those up the ladder? Hope all is well.

Thanks,

Trevor

On Fri, Oct 10, 2014 at 4:23 PM, Trevor Gale < trevorvgale@gmail.com > wrote: Great. I certainly appreciate how busy you all are and am realistic about where this would lie in terms of priorities. Have your discussion and let me know. As you pointed out, this has the power of human samples and the convenience of-

what is my understanding at least-a pretty straightforward, established assay so hopefully data acquisition on your end wouldn't be terribly labor intensive.

I haven't seen much in the literature regarding VHF and PAF but theres a good chance I'm just not looking in the right place. If you've got any suggestions I'd love to review them.

Its likely out of reach at this point but PAF is pretty easily detected via LCMS and we have a unit in Kenema that has never been used...Like I said, probably a pipe dream but I'm trying and I've digressed.

Best,

Trevor

On Fri, Oct 10, 2014 at 4:14 PM, Cross, Robert W. < <u>rwcross@utmb.edu</u>> wrote: | Sounds good.

This is certainly in line with the field. PAF has been looked at, but context is everything and human samples are some of the most powerful. Indeed, its most likely all the hot work will need to be done here, the red tape on anything BSL4 is getting more dense by the day.

I'll run it up the pole and see how doable it will be. I'll say off the cuff that the current outbreak has shifted a lot of our priorities in regard to the work queue, so just be patient with us as the process moves forward.

I'll let you know as soon as I get an opportunity to chat with Tom about it. Looking forward to the work.

Best,

Bob

From: Trevor Gale [mailto:trevorvgale@gmail.com]

Sent: Friday, October 10, 2014 3:55 PM

To: Cross, Robert W. Subject: Re: TEER

Dr. Cross,

Just spoke with Dr. Garry and he thinks it would be great as well. It would be especially valuable if we could extent some of this to filoviruses as well. From my end I'm fully on board.

I can put a more concise idea/protocol together next week but in a nutshell we see a drop in Platelet-activiating factor and related inflammatory lipids in terminal Lassa fever patient sera. Side note: we have sera waiting for us in SL right now from EBO ManR (I think thats what they're calling it) that I will run

as soon as I can but I believe it needs to be processed for my metabolomics purposes *before* if comes to me. Still we might be able to cover both VHFs at the sera metabolomics level.

PAF is pretty ubiquitous and as such, obviously not a unique biomarker to Lassa Fever. Nevertheless we record a pretty steady drop in PAF signal in our acute/early patient samples and see a precipitous decline in the patients whom eventually perish. Its most likely that all free PAF is bound to its receptor but it still looks like a strong indicator of outcome (we're in the process of quantifying now). My intuition leads me to believe its probably a conserved observation across VHF and if we can establish a nice *in vitro* assay like a TEER to show that it would be great. Theres lots of angles here, including the similarity of VHF and Sepsis; I believe groups have attempted to mediate sepsis pathology with PAFR antagonists which would be worthy of testing in whatever system I/we might develop.

So there you have it. When he was here last month I casually asked Dr. Geisbert if I could get some controlled NHP sera to assess for PAF levels but as I'd imagine is the case with all things BSL4, "easier said than done."

If you think its a line of evidence worth pursing lets chat further; I can order everything from my end and mail it to you. I'm sure theres nothing I can do if this pan out to be a UTMB and/or BSL4 endeavor but I'll say it for proprieties sake, if I could be a functional pair of hands for you I'd love to see Galveston. So there you have it, a veiled attempt to rub elbows at UTMB.

Of course if this is not of interest to you for whatever reason we'd appreciate your confidentiality moving forward.

I'll look forward to hearing from you and hope you have a great weekend,

Trevor

On Fri, Oct 10, 2014 at 12:51 PM, Cross, Robert W. < <u>rwcross@utmb.edu</u>> wrote:

I see.

Yeah, I'd be surprised if Tom didn't take any of those reader's with him. Not exactly sure what he was allowed to take and not. Though, a lion's share of what that lab had was bought off contract moneys, so it's really likely more his to take than Tulane's to keep. Probably cost 3-4g's to get the reader and associated probes.

Your Psuedovirus system may work as long as the caveats are recognized and the CPE caused by virus alone (if any) isn't overt. LASV does not show any appreciable CPE in the endothelium either *in vitro* or *in vivo*. Also, classic DIC is not really characteristic in fatal LASV of humans. There is, however, no doubt EC involvement...so you are likely not far off.

Here is a thought to consider....since ease, containment, and cost seem to be major roadblocks....

Since our labs (Garry/Geisbert) have an active collaboration going on, and I already have some LASV (among other VHF) EC experiments going on related to cell activation and their downstream events, plus I have immediate access to the requisite containment and EC equipment (Cells/TEER/ECIS)....it's possible we could start a dialog to work in concert on this idea where I could be a supportive element of your project on the EC/BSL4 side of things. Specifics can be worked out as we move along.

Give it some thought and maybe run it by Bob. If he's OK, I'll run it up the chain on my end to make sure my boss is on board....

Otherwise, I'll be happy to help you get set up independently as well.

Talk soon,

Bob

From: Trevor Gale [mailto:<u>trevorvgale@gmail.com</u>]

Sent: Friday, October 10, 2014 12:22 PM

To: Cross, Robert W. **Subject:** Re: TEER

Dr. Cross,

Thanks for the speedy reply and thanks for offering your insight, I'm definitely looking to keep things as concise as possible and make a hasty exit here. So my primary research is serum metabolomics of VHF, right now working with Lassa sera samples. We see some interesting features, including a class of inflammatory molecules that may act as a neat surrogate measure of disease progress. Right now, if it were accessible, cheap, and easy enough I'd like to do a TEER assay on some ECs to see what one these molecules does to them (probably more permeable + endogenous release of more), complex the molecule + our Lassa pseudovirus (assuming the ECs express alpha-dys and expect even more permeable), and molecule + receptor agonist + pseudovirus (mediate virus damage).

I suspect what I see in my metabolomics results are indicative of DIC and as such I'm curious if there is an easy non-BSL4 way to look at well characterized inflammatory mediators. Though "easy," "cheap," and "non-BSL4" is what we're all after on some level are mostly phantoms.

Did Dr. Voss own the EVOM and if so do you happen to know that he took it with him?

Thank you much,

Trevor

On Fri, Oct 10, 2014 at 12:07 PM, Cross, Robert W. < <u>rwcross@utmb.edu</u>> wrote:

Hi Trevor,

No problem, on the email. We used either an EVOM or EVOM2 from world precision instruments with the probe cup for use with 24 well transwell system (corning). I used a multitude of cell EC cell types, including HUVEC for some of my TEER experiments.

I will be glad to help insofar as I am able. It might be helpful to know what the goal of your experiment or the nature of the scientific question is you want to use this method to answer. This way I can give more relevant advice...and maybe help you from reinventing the wheel.

Best,

Bob

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: <u>409-266-6825</u> O:<u>409-266-6904</u> rwcross@utmb.edu



Working together to work wonders."



Date: 10/22/2014 1:21:48 PM From: "Cross, Robert W."

To: "International Travel" inttravl@UTMB.EDU, "Rubio, Marcela L."

mlrubio@UTMB.EDU

Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "McNees, Andrew G."

amcnees@UTMB.EDU, "Ramos, Analaura" anramos@utmb.edu

Subject: RE: Travel for Robert Cross to Ebola outbreak in Sierre Leone

Attachment: image001.png;image002.png;

Marcella or Ana,

Can you obtain necessary signatures & do you need original document to do so?

Bob C.

From: International Travel

Sent: Wednesday, October 22, 2014 1:11 PM **To:** Cross, Robert W.; Rubio, Marcela L.

Cc: Geisbert, Thomas W.; McNees, Andrew G.; Ramos, Analaura **Subject:** RE: Travel for Robert Cross to Ebola outbreak in Sierre Leone

Hello.

This form lacks the Chair or Designee's signature. Please resend all documents when you obtain signature.

Regards,

Provost Operations and Fiscal Affairs International Travel Request Process X26698

From: Cross, Robert W.

Sent: Wednesday, October 22, 2014 12:12 PM

To: Rubio, Marcela L.

Cc: Geisbert, Thomas W.; McNees, Andrew G.; Ramos, Analaura; International Travel

Subject: RE: Travel for Robert Cross to Ebola outbreak in Sierre Leone

Hi Marcela,

Attached is the completed forms and iSOS registration/itinerary information. You will be able to process this from here, correct?

Let me know if you need further information,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.

Post Doctoral Fellow II: Geisbert Lab Galveston National Laboratory

Rm. 5.324, L29030

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu



Working together to work wonders."

From: Rubio, Marcela L.

Sent: Tuesday, October 21, 2014 8:20 AM

To: Cross, Robert W.

Cc: Geisbert, Thomas W.; McNees, Andrew G.; Ramos, Analaura

Subject: RE: Travel for Robert Cross to Ebola outbreak in Sierre Leone

Good Morning Dr. Cross,

I have attached our international travel request form. Make sure to mark the box that states no cost to UTMB. Let me know if you have any questions.

Please list fiames of others from Of	IVID Cravelling On	uns un			
ENTIRE Chart Field String (CFS) information check here if no cost to UTMB					
	Fund	D			
Source of Funds					

Thanks Marcela

From: Ramos, Analaura

Sent: Tuesday, October 21, 2014 8:00 AM

To: Rubio, Marcela L.

Cc: Cross, Robert W.; Geisbert, Thomas W.; McNees, Andrew G.

Subject: FW: Travel for Robert Cross to Ebola outbreak in Sierre Leone

Good morning Marcela,

Can you please send the no cost to UTMB--International travel request form to Dr. Cross.

Thank you

Ana Laura Ramos

Sr. Administrative Manager Microbiology & Immunology 301 University Blvd., Galveston, TX 77555-1019 P 409.772-2724 F 409.772-2366 E anramos@utmb.edu



Working together to work wonders."

From: McNees, Andrew G.

Sent: Tuesday, October 21, 2014 7:50 AM **To:** LeDuc, James W.; Geisbert, Thomas W.

Cc: Niesel, David W.; Ramos, Analaura; Ksiazek, Thomas G.

Subject: RE: Travel for Robert Cross to Ebola outbreak in Sierre Leone

As far as UTMB hurdles go, same hoops as always. International travel request. Ana, can you please ask someone to assist?

Thanks,

agm

From: LeDuc, James W.

Sent: Tuesday, October 21, 2014 7:30 AM

To: Geisbert, Thomas W.

Cc: Niesel, David W.; McNees, Andrew G.; Ramos, Analaura; Ksiazek, Thomas G.

Subject: Re: Travel for Robert Cross to Ebola outbreak in Sierre Leone

He should speak with Tom K who was recently there.

Safe travels. Jim

Sent from my iPhone

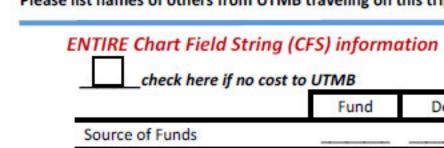
On Oct 21, 2014, at 6:56 AM, Geisbert, Thomas W. <twgeisbe@UTMB.EDU> wrote:

Dave,

I have a number of funded projects with Bob Garry at Tulane. As you may know Tulane has maintained a study site for Lassa fever at the Kenema General Hospital in Sierra Leone, which is now right in the middle of the Ebola outbreak. My postdoc Bob Cross came from Tulane and he has been to this site while he was at Tulane. Bob Garry has asked if Bob Cross can go to Sierra Leone for a few weeks next month to support some of our joint efforts including use of a new rapid diagnostic test for Ebola and Lassa that was developed by another partner, Corgenix. Tulane will be covering all expenses. Can you let me know asap if there are any problems with this or if there is anything that I need to do internally to make this happen?

Many thanks!





Date: 11/6/2014 9:38:29 PM From: "Cross, Robert W."

To: "Schieffelin, John S" jschieff@tulane.edu Cc: "lmoses2@tulane.edu" lmoses2@tulane.edu

Subject : Re: Travel to Sierra Leone

Hey John,

I wanted to check in with you on the status of permissions from moh to ship hot samples back to utmb. These are still in progress?

Thanks,

Bob

Sent from mobile

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> On Nov 6, 2014, at 21:33, "Schieffelin, John S" <jschieff@tulane.edu> wrote: > Prof Gevao, >
```

> I am looking forward to our arrival in Freetown next week. Our flight from Brussels arrives at 7pm the evening of November 12th. Could you arrange meetings for us with the CMO and anyone else you feel we should meet? It is important for us to have these meetings, if possible, early on the 13th. Some of the work we need to conduct must be done quickly so the samples can be shipped out as soon as possible. It is vital that we arrive in Kenema by the evening of the 13th so we can collect and process samples on the 14th.

> I will be sending a letter describing our goals for this trip very soon.

> Thank you, > John

> John S. Schieffelin, M.D., M.S P.H.

- > Assistant Professor of Pediatrics and Internal Medicine
- > Sections of Infectious Disease
- > Tulane University School of Medicine
- > 1430 Tulane Ave TB-8
- > New Orleans, LA 70112
- > jschieff@tulane.edu
- > (504) 988-5117 (office)
- > (504) 988-2613 (fax)

Date: 9/5/2014 3:07:38 PM From: "Cross, Robert W."

To: "'Garry, Robert F'" rfgarry@tulane.edu, "Geisbert, Thomas W."

twgeisbe@UTMB.EDU

Cc: "'Luis Branco - ZalgenLabs. com'" lbranco@zalgenlabs.com,

"'mboisen24@gmail.com" mboisen24@gmail.com

Subject : RE: update

Matt,

Can you arrange to have some of the prototype EBOV RDTs/ELISAs sent to us here at GNL? We can then test against our stocks and some of the new strains as they become available.

Thanks!

Bob Cross

From: Garry, Robert F [mailto:rfgarry@tulane.edu]

Sent: Friday, September 05, 2014 8:59 AM **To:** Geisbert, Thomas W.; Cross, Robert W.

Cc: Luis Branco - ZalgenLabs. com; mboisen24@gmail.com

Subject: update

Hi Gentlemen,

Just wanted to post you on some more news from Kenema.



Bob

Also Tony Fauci/Francis Collins are pushing us to get samples out of Kenema – we have cleared out some political hurdles to doing so.

Date: 12/1/2014 11:11:14 AM From: "Cross, Robert W."

To: "Schieffelin, John S" jschieff@tulane.edu, "Garry, Robert F"

rfgarry@tulane.edu, "Luis Branco - ZalgenLabs.com"

lbranco@zalgenlabs.com, "Haislip, Allyson M" amh777@tulane.edu

Cc: "Matt Boisen" mboisen24@gmail.com, "Augustine Goba"

augstgoba@yahoo.com, "Lina Moses" linammoses@gmail.com, "Bethany Belote" BBelote@corgenix.com, "Doug Simpson" DSimpson@corgenix.com,

"Moses, Lina M" lmoses2@tulane.edu, "Jessica Hartnett"

j.n.grove@gmail.com Subject : RE: update

RWC

From: Schieffelin, John S [mailto:jschieff@tulane.edu]

Sent: Monday, December 01, 2014 10:39 AM

To: Garry, Robert F; Luis Branco - ZalgenLabs.com; Haislip, Allyson M

Cc: Matt Boisen; Augustine Goba; Lina Moses; Bethany Belote; Doug Simpson; Moses,

Lina M; Jessica Hartnett; Cross, Robert W.

Subject: Re: update

John S. Schieffelin, M.D., M.S.P.H.

Assistant Professor of Pediatrics and Internal Medicine

Sections of Infectious Disease

Tulane University School of Medicine

1430 Tulane Ave TB-8

New Orleans, LA 70112

jschieff@tulane.edu

(504) 988-5117 (office)

(504) 988-2613 (fax)

From: <Garry>, Robert F rfgarry@tulane.edu

Date: Monday, December 1, 2014 9:27 AM

To: "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>, "Haislip, Allyson

M" <amh777@tulane.edu>

Cc: "Garry, Robert F" rfgarry@tulane.edu, Matt Boisen mboisen24@gmail.com,

Augustine Goba <augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>,

Bethany Belote Bethany Belote Belote Belote Belote @corgenix.com, Doug Simpson Simpson@corgenix.com,

john schieffelin <jschieff@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu>, Jessica

Hartnett <j.n.grove@gmail.com>, "Cross, Robert W." <rwcross@utmb.edu>

Subject: Re: update

From: "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>

Date: Monday, December 1, 2014 9:22 AM

To: "Haislip, Allyson M" <amh?77@tulane.edu>

Cc: Robert Garry <rfgarry@tulane.edu>,

"mboisen24@gmail.com" <mboisen24@gmail.com>, Augustine Goba

<augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>, Bethany Belote

<<u>BBelote@corgenix.com</u>>, Doug Simpson <<u>DSimpson@corgenix.com</u>>, "Schieffelin, John

S" <jschieff@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu>, Jessica Hartnett

<j.n.grove@gmail.com>, "Cross, Robert W." <rwcross@utmb.edu>

Subject: Re: update

All,



Luis

On Sat, Nov 29, 2014 at 1:37 PM, Haislip, Allyson M <amh777@tulane.edu> wrote:

I've made 1 phone call to Germany, sent 3 emails to a woman named Anke about the order with US shipping address and offered payment info but no replies. I'll get on the phone with them early Monday morning and send out another email and hopefully get some kind of response as to how to proceed by early next week. I don't know why they are dragging their heels.

Allyson

From: <Garry>, Robert F <<u>rfgarry@tulane.edu</u>>
Date: Friday, November 28, 2014 8:23 PM

To: Matt Boisen <mboisen24@gmail.com>, "Garry, Robert F" <rfgarry@tulane.edu>

Cc: Augustine Goba augstgoba@yahoo.com">augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>, Bethany Belote BBelote@corgenix.com>, Doug Simpson DSimpson@corgenix.com>, "Luis Branco - ZalgenLabs.com" lbranco@zalgenlabs.com>, "Schieffelin, John S" jschieff@tulane.edu>, "Moses, Lina M" lmoses2@tulane.edu>, "Haislip, Allyson M" amh777@tulane.edu>

Subject: Re: update

Dunno, but that's why need to discuss options

The germans need to send us the kits first! -

From: "mboisen24@gmail.com" <mboisen24@gmail.com>

Date: Friday, November 28, 2014 8:22 PM

To: Robert Garry <rfgarry@tulane.edu>

Cc: Augustine Goba <augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>, Bethany Belote <BBelote@corgenix.com>, Doug Simpson <DSimpson@corgenix.com>, "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>, "Schieffelin, John

S" <jschieff@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu>, "Haislip, Allyson

M" <amh777@tulane.edu>

Subject: Re: update

When do we anticipate this study would happen?

Matt Boisen **Program Director** Corgenix Inc.

On Nov 28, 2014 1:37 PM, "Garry, Robert F" <rfgarry@tulane.edu> wrote:

From: Lina Moses linammoses@gmail.com> Date: Friday, November 28, 2014 2:17 PM To: Robert Garry <rfgarry@tulane.edu>

Cc: Doug Simpson < DSimpson@corgenix.com >, Augustine Goba

<augstgoba@yahoo.com>, "mboisen24@gmail.com" <mboisen24@gmail.com>, "Luis

Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>, Bethany Belote

<BBelote@corgenix.com>, "Schieffelin, John S" <jschieff@tulane.edu>, "Haislip, Allyson

M" <amh777@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu>

Subject: Re: update

I think we need to be cautious about pushing too many things on MOHS right now. They are 100% behind the rapid tests and I wouldn't want to alienate them.

On Nov 28, 2014 6:09 PM, "Garry, Robert F" < rfgarry@tulane.edu > wrote: http://investor.illumina.com/phoenix.zhtml?c=121127&p=irol-newsArticle

From: "Luis Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>

Date: Friday, November 28, 2014 12:01 PM To: Robert Garry <rfgarry@tulane.edu>

Cc: "Schieffelin, John S" <jschieff@tulane.edu>, "Moses, Lina M" <lmoses2@tulane.edu>,

Doug Simpson < DSimpson@corgenix.com >,

"mboisen24@gmail.com" < mboisen24@gmail.com >, Augustine Goba

<augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>, Bethany Belote

<<u>BBelote@corgenix.com</u>>, "Haislip, Allyson M" <<u>amh777@tulane.edu</u>>

Subject: Re: update Luis On Fri, Nov 28, 2014 at 12:17 PM, Garry, Robert F < rfgarry@tulane.edu > wrote: Copying Allyson to get status of the Altona kit, which WHO has insisted that we use. From: <Schieffelin>, John S <jschieff@tulane.edu> Date: Friday, November 28, 2014 11:03 AM To: "Moses, Lina M" <lmoses2@tulane.edu>, Robert Garry <rfgarry@tulane.edu>, Doug Simpson < DSimpson@corgenix.com >, "mboisen24@gmail.com" <mboisen24@gmail.com>, "Luis Branco -ZalgenLabs.com" < lbranco@zalgenlabs.com> Cc: Augustine Goba <augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>, Bethany Belote < BBelote@corgenix.com > Subject: Re: update Attached is the protocol.

John S. Schieffelin, M.D., M.S.P.H. Assistant Professor of Pediatrics and Internal Medicine Sections of Infectious Disease Tulane University School of Medicine 1430 Tulane Ave TB-8 New Orleans, LA 70112 jschieff@tulane.edu (504) 988-5117 (office) (504) 988-2613 (fax)

From: <Moses>, Lina M <<u>lmoses2@tulane.edu</u>>
Date: Friday, November 28, 2014 7:10 AM

 $\textbf{To:} \ john \ schieffelin < \underline{jschieff@tulane.edu} >, \ "Garry, \ Robert \ F" < \underline{rfgarry@tulane.edu} >, \ Doug$

 $Simpson < \underline{DSimpson@corgenix.com} >, \ Matt \ Boisen < \underline{mboisen24@gmail.com} >, \ "Luis$

Branco - ZalgenLabs.com" < lbranco@zalgenlabs.com>

Cc: Augustine Goba <augstgoba@yahoo.com>, Lina Moses linammoses@gmail.com>

Subject: update

Hi folks,

Happy Thanksgiving. Here's a quick update and request for information.



Thanks all,

Lina

+232 76 731 584

--

Luis M Branco, Ph.D.
Co-Founder, Zalgen Labs, LLC
20271 Goldenrod Lane, Suite 2083
Germantown, MD 20876
504-444-7047 (cell)
504-252-0889 (main)
Ibranco@zalgenlabs.com

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20271 Goldenrod Lane, Suite 2083
Germantown, MD 20876
504-444-7047 (cell)
504-252-0889 (main)
Ibranco@zalgenlabs.com

Date: 12/6/2014 9:58:35 PM From: "Cross, Robert W."

To: "Matt Boisen" mboisen24@gmail.com

Cc: "Garry, Robert F" rfgarry@tulane.edu, "Moses, Lina M"

lmoses2@tulane.edu, "Lina Moses" linammoses@gmail.com, "Augustine Goba" augstgoba@yahoo.com, "Bethany Belote" BBelote@corgenix.com,

"Doug Simpson" DSimpson@corgenix.com, "Jessica Grove"

j.n.grove@gmail.com, "Luis Branco - ZalgenLabs.com"

lbranco@zalgenlabs.com, "Schieffelin, John S" jschieff@tulane.edu,

"gevaosm" gevaosm@yahoo.com, "simbiriej5@gmail.com"

simbiriej5@gmail.com

Subject: Re: update 7 December

I will likely be in Salone or Liberia beginning mid-January through much of Feb. on lab mission(s) with WHO...details still very fuzzy, but would certainly like to be in contact with anyone on the ground at that time. Will advise as details settle.

RWC

Sent from mobile

On Dec 6, 2014, at 21:41, Matt Boisen mboisen24@gmail.com wrote:

Uh Oh, That means I need to get there before Bob;-)

What is the status of the Piccalo testing?

On Sat, Dec 6, 2014 at 8:38 PM, Garry, Robert F rfgarry@tulane.edu wrote:

I'm going too

Sent from my iPhone

On Dec 6, 2014, at 9:30 PM, "Matt Boisen" mboisen24@gmail.com wrote:

My assistant Diana and I are considering going to Kenema in early January to run additional validation studies on the Ebola RDT. John and I had also discussed running quick clinical study in Freetown which would be part of Corgenix validation. I also need to be back before end of Jan to clear 21 days before mid Feb.

Matt Boisen Program Director Corgenix Inc.

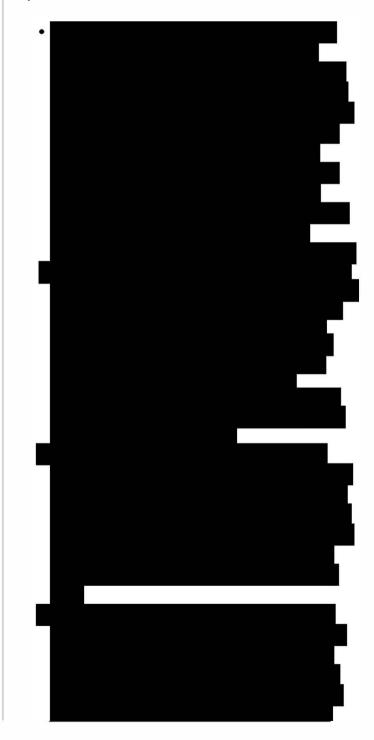
On Dec 6, 2014 6:10 PM, "Moses, Lina M" <lmoses2@tulane.edu> wrote:

Hello All,

Sending an update.

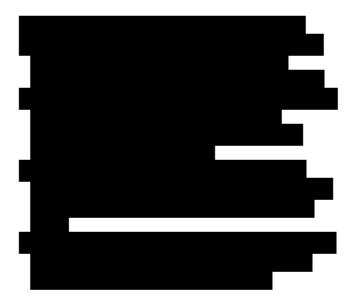
552.111 throughout

Rapid test:





January trip to SL?:



Other issues:



• MSF came to look at the progress on the refurbished Lassa Ward to see if KGH ready to receive Lassa patients again. We gave them a tour and they had positive comments stating they are looking forward to seeing progress in the next few weeks. I've since learned (second-hand) that their current recommendations are to send suspected Lassa cases among MSF staff to Kailahun for testing and isolation, and for those coming from the community, to send them home. Public Health Canada has qPCR testing

for Lassa. This is disappointing in the very least. I'm trying to reconnect with the medical coordinators in MSF Kailahun and Bo to try to reinforce that KGH is ready to diagnose and treat Lassa patients.

I have an additional email related to shipping that I won't belabor all of you on.

Thanks! Lina

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp.

11575 Main Street, Suite 400

Broomfield, CO 80020 USA

Phone: 303-775-7752 mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

Conferencing Center
Dial-in:1-877-805-0965

Passcode: 5769227

Date: 9/5/2014 4:01:35 PM From: "Cross, Robert W."

To: "'Garry, Robert F'" rfgarry@tulane.edu, "'Matt Boisen'"

mboisen24@gmail.com

Cc: "Geisbert, Thomas W." twgeisbe@UTMB.EDU, "'Luis Branco -

ZalgenLabs. com'" lbranco@zalgenlabs.com

Subject : RE: update JOYFUL NEWS

Excellent news indeed! Cheers all around.

Matt, might be best/easiest to have them sent directly here.

Thanks!

Bob C.

From: Garry, Robert F [mailto:rfgarry@tulane.edu]

Sent: Friday, September 05, 2014 3:52 PM

To: Matt Boisen

Cc: Geisbert, Thomas W.; Cross, Robert W.; Luis Branco - ZalgenLabs. com

Subject: Re: update JOYFUL NEWS

From: "mboisen24@gmail.com" <mboisen24@gmail.com>

Date: Friday, September 5, 2014 3:21 PM To: Robert Garry <rfgarry@tulane.edu>

Cc: "Geisbert, Thomas W." <twgeisbe@utmb.edu>, "Cross, Robert

W." <rwcross@utmb.edu>, "Luis Branco - ZalgenLabs. com" <lbranco@zalgenlabs.com>

Subject: Re: update

Glad to hear testing time is available, We are striping RDT membranes today and making gold conjugate no later than Monday. Would like to bring some with me to Tulane but can send directly to UTMB after meeting.

Thanks,

Matt

On Fri, Sep 5, 2014 at 2:03 PM, Garry, Robert F <<u>rfgarry@tulane.edu</u>> wrote: That's great Tom — Matt will bring some RDTs I think? — we're gonna see you next week right? Yes, we're hoping that the "Africa Zmapp [which =blood" will work, but remaining very very hopeful and cautious. Have not stopped on the "Lassa Zmapp" as well.

From: <Geisbert>, "Thomas W." <twgeisbe@UTMB.EDU>

Date: Friday, September 5, 2014 2:57 PM

To: Robert Garry <rfgarry@tulane.edu>, "Cross, Robert W." <rwcross@UTMB.EDU>

Cc: "Luis Branco - ZalgenLabs. com" < lbranco@zalgenlabs.com>,

"mboisen24@gmail.com" <mboisen24@gmail.com>

Subject: RE: update

Bob,

Thanks for the info and sorry to hear about the staff. Yes, I think we can work in the Ebola RDTs. Would be easiest to do this in the BSL-4 at the moment.

That sounds good on getting samples out and Drs. Fauci and Collins are probably right. We have import permits in hand as I went ahead and got the Ebola permit as well when we did the Lassa.

Tom

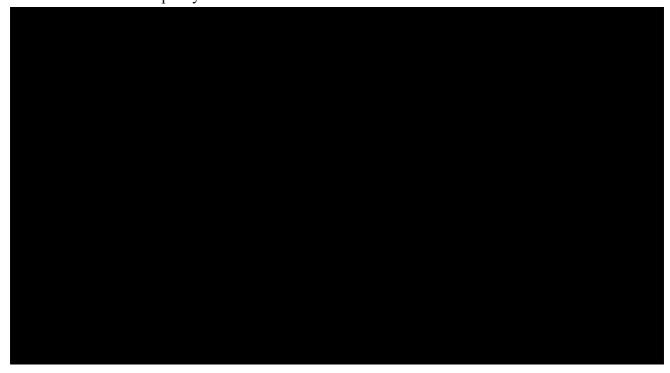
From: Garry, Robert F [rfgarry@tulane.edu]
Sent: Friday, September 05, 2014 8:59 AM
To: Geisbert, Thomas W.; Cross, Robert W.

Cc: Luis Branco - ZalgenLabs. com; mboisen24@gmail.com

Subject: update

Hi Gentlemen,

Just wanted to post you on some more news from Kenema.



Will keep you posted.

Bob

Also Tony Fauci/Francis Collins are pushing us to get samples out of Kenema – we have cleared out some political hurdles to doing so.

--

Matt Boisen

Program Director - Infectious Diseases and Emerging Technologies Corgenix Medical Corp. 11575 Main Street, Suite 400 Broomfield, CO 80020 USA

Phone: 303-775-7752 mboisen@corgenix.com

Development Director - In Vitro Diagnostics Viral Hemorrhagic Fever Consortium Center for Infectious Diseases Tulane University School of Medicine 1430 Tulane Avenue, JBJ Building, Rm 557 New Orleans, LA 70112 USA mboisen@tulane.edu

Conferencing Center

Dial-in:1-877-805-0965 Passcode: 5769227 Date: 8/24/2014 9:32:48 PM From: "Cross, Robert W."

To: "Luis Branco" lbranco08@gmail.com

Subject: Re: VHFC Crowd Sourcing EBOV/LASV hospital support

Kind of like the <u>kickstarter.com</u> thing. You essentially use internet to spread the word of your need, and it typically goes viral from there. It can be shared on as many sites as the public chooses to share it on. I contacted Vince because his podcast has thousands of virologists, biologists, and folks that are just plain interested in virology who listen to his weekly podcast. He and I have written in the past on VHF related issues, so I thought it a good way to get the word out.

Does that answer your question?

В

Sent from mobile

On Aug 24, 2014, at 21:04, "Luis Branco" < lbranco08@gmail.com> wrote:

Hi, Bob

How does crowd sourcing work? Can it be advertised on multiple venues?

Luis

On Sun, Aug 24, 2014 at 9:36 PM, Cross, Robert W.

<rwcross@utmb.edu> wrote:

FYI, Vince is going to advertise the fund raising site next Sunday on TWIV.

Bob

Sent from mobile

Begin forwarded message:

From: Vincent Racaniello < vrr1@columbia.edu>

Date: August 24, 2014 at 20:21:29 CDT **To:** "Cross, Robert W." rwcross@utmb.edu

Subject: Re: VHFC Crowd Sourcing EBOV/LASV

hospital support

Hi Bob.

We're recording TWiV #300 this Tuesday and we'll be sure to read this letter to drum up support for VHFC.

Vincent

Vincent Racaniello, PhD

<u>twiv.tv</u> | <u>virology.ws</u> | <u>twitter.com/profvrr</u>
'Trust science, not scientists'

MicrobeTV - Exciting with Science

On Sun, Aug 24, 2014 at 3:30 PM, Cross, Robert W. rwcross@utmb.edu> wrote:

Hi Vincent,

I hope you don't mind my writing. In light of your recent coverage on the current west African EBOV outbreak, I wanted to bring to your attention a current issue one of the major hospitals dealing with the outbreak is having in hopes that you might pass this information on to the listeners of your many online programs (TWIV, TWIP, ect...). The Kenema Government Hospital in Sierra Leone has been an epicenter for field work and treatment of Lassa fever for well over 10 years. During much of this time, there has been much support from NIH and other US governmental entities to study the natural history and uncover potential routes for treatment for LASV and many other tropical viral infections. Unfortunately, the group there has recently received news that their major funding support from NIH would not be renewed. As you know, the grant writing and review cycle can take time from the point of submission to the final funding decision. The highly collaborative group that submitted the support grant, Viral Hemorrhagic Fever Consortium (http://vhfc.org/) submitted the request for funds prior to now expanding EBOV outbreak. To date, this site has processed over 95% of the patients and samples from this outbreak, but despite this heroic effort the funding has still not been renewed.

In an effort to seek help from the global community through crowd sourcing the much needed funds, a tax-deductible donation website has been set up through colleagues at the Scripps Institute. Persons interested in donating to support this program can access this site through the VHFC website here http://vhfc.org/media/news/help-support-our-program-kenema.

I'm unsure if anyone else from the program has contacted you on this, but this is merely an effort to hedge our bets and get the word out for a cause that any virologist would be proud to support.

Many thanks for your consideration in helping to spread the word.

Kindest regards,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.

Galveston National Laboratory

Rm. 5.324

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825

O:409-266-6594

rwcross@utmb.edu

--

Luis M Branco, Ph.D.
AutoImmune Technologies, LLC
200 Henry Clay Ave., New Orleans, LA 70118
&
Tulane University Health Science Center
1430 Tulane Avenue, JBJ Building, Rm 557, New Orleans, LA 70112
lbranco08@gmail.com
504-444-7047

Date: 8/24/2014 8:43:43 PM From: "Cross, Robert W."

To: "Vincent Racaniello" vrr1@columbia.edu

Subject: Re: VHFC Crowd Sourcing EBOV/LASV hospital support

Many thanks Vince!

Bob

Sent from mobile

On Aug 24, 2014, at 20:21, "Vincent Racaniello" < vrr1@columbia.edu> wrote:

Hi Bob,

We're recording TWiV #300 this Tuesday and we'll be sure to read this letter to drum up support for VHFC.

Vincent

Vincent Racaniello, PhD

<u>twiv.tv</u> | <u>virology.ws</u> | <u>twitter.com/profvrr</u>
'Trust science, not scientists'

MicrobeTV - Exciting with Science

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<rwcross@utmb.edu> wrote:

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Bob Cross

Robert W. Cross, Ph.D., MP.H.

Galveston National Laboratory

Rm. 5.324

Department of Microbiology and Immunology

University of Texas Medical Branch

301 University Boulevard

Mail Route: 10610

Galveston, Texas 77555-0610

L: 409-266-6825

O:409-266-6594

rwcross@utmb.edu

Date: 8/25/2014 5:58:33 PM From: "Cross, Robert W."

To: "'Moses, Lina M'" lmoses2@tulane.edu

Subject: RE: VHFC Crowd Sourcing EBOV/LASV hospital support

Likewise bud, hope you are doing well...

...heavy times

b

From: Moses, Lina M [mailto:lmoses2@tulane.edu]

Sent: Monday, August 25, 2014 5:07 PM

To: Cross, Robert W.

Subject: RE: VHFC Crowd Sourcing EBOV/LASV hospital support

You are awesome.

From: Cross, Robert W. < rwcross@UTMB.EDU > Sent: Monday, August 25, 2014 1:36 AM

To: Garry, Robert F; Luis Branco; Lina Moses; Moses, Lina M; pardis@broadinstitute.org;

erica@scripps.edu; Geisbert, Thomas W.

Subject: Fwd: VHFC Crowd Sourcing EBOV/LASV hospital support

FYI, Vince is going to advertise the fund raising site next Sunday on TWN.

Bob

Sent from mobile

Begin forwarded message:

From: Vincent Racaniello <vrr1@columbia.edu>

Date: August 24, 2014 at 20:21:29 CDT

To: "Cross, Robert W." < rwcross@utmb.edu>

Subject: Re: VHFC Crowd Sourcing EBOV/LASV hospital support

Hi Bob,

We're recording TWiV #300 this Tuesday and we'll be sure to read this letter to drum up support for VHFC.

Vincent

Vincent Racaniello, PhD

twiv.tv | virology.ws | twitter.com/profvrr

'Trust science, not scientists'

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I'm unsure if anyone else from the program has contacted you on this, but this is merely an effort to hedge our bets and get the word out for a cause that any virologist would be proud to support.

Many thanks for your consideration in helping to spread the word.

Kindest regards,

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Galveston National Laboratory
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Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610
L: 409-266-6825

O:409-266-6594 rwcross@utmb.edu

Date: 11/14/2014 4:45:43 AM From: "Cross, Robert W."

To: "LeDuc, James W." jwleduc@UTMB.EDU

Subject: RE: WHO GOARN Program through UTMB

Hi Dr. Leduc,

Totally agree. Made an effort to make that clear to Armand at GOERN, before moving forward. I also need to clear with Tom Geisbert before proceeding as well. Did not plan to work up any permissions beyond Tom G. until he gives approval.

I'll keep you in the loop on how that progresses.

As an update, things are pretty quiet in Kenema. No cases in 3 days in the district we are in. Freetown has very visible containment efforts in progress, good to see. Hit the ground running with the research efforts already. Lots to do and not a lot of time to get it done, but should be able to reach our goals without too much issue.

Talk with you soon,

Bob

From: LeDuc, James W.

Sent: Friday, November 14, 2014 1:42 AM

To: Cross, Robert W.

Subject: Fwd: WHO GOARN Program through UTMB

Bob. We need to make sure that you have university approval for this mission before we get too far along. Will probably need to clear with Dr Niesel and perhaps Dr Jacobs. There is probably a UT Systems clearance as well. We can discuss on my return or you can begin to explore on your own. Since the epidemic has been in the news the approval process has gotten more intense.

Thanks. Jim

Sent from my iPhone

Begin forwarded message:

From: goarn < goarn@who.int>

Date: November 14, 2014 at 1:49:36 AM GMT+8 **To:** "Cross, Robert W." rwcross@utmb.edu

Cc: "LeDuc, James W." < jwleduc@utmb.edu>, "Ksiazek, Thomas

G." <tgksiaze@utmb.edu>, "DRURY, Patrick

Anthony" <<u>druryp@who.int</u>>, goarn <<u>goarn@who.int</u>>
Subject: RE: WHO GOARN Program through UTMB

Dear Bob,

Thank you for this information.

Laboratory coordinator position is fairly new in this response. January is an option for deployment and we can touch base later when you know more details about your availability.

I have attached terms of reference for Laboratory coordinator. Duty stations are likely to be Liberia or Sierra Leone. At present all experts who are deployed to the field are routed to Geneva to attend 4 hour 'Protect' training. In addition, as part of pre-deployment procedure all experts who are deployed to the field have to complete online UN security training.

We remain available to answer any other queries.

Thanks again and best regards,

Armand on behalf of GOARN Operational Support Team

Global Outbreak Alert and Response Network Global Capacities, Alert and Response World Health Organization Avenue Appia 20

1211 Geneva 27, Switzerland

E-mail: goarn@who.int

From: Cross, Robert W. [mailto:rwcross@utmb.edu] **Sent:** Tuesday, 11 November 2014 8:51 p.m.

To: goarn

Cc: LeDuc, James W.; Ksiazek, Thomas G.; DRURY, Patrick Anthony

Subject: Re: WHO GOARN Program through UTMB

Dear Armand et. al.,

I don't believe that my current deployment to Sierra Leone will allow for this length of time; however, I

am interested in returning to deploy to the region early January if the need still exists. Pending permissions from all utmb and family elements, a longer deployment would be possible then...but I will need some time to work out specifics on my end including specific dates and required institutional permissions.

I understand that this is a time sensitive issue, so it would be helpful if you could send information about the specific mission/job description, deployment location(s) and any WHO training requirements. This information will help me expedite the decision making process on all fronts.

Kindest regards,

Bob Cross

Sent from mobile

On Nov 10, 2014, at 9:47, "goarn" <goarn@who.int> wrote:

Dear Jim and Bob,

Many thanks for this offer.

Our country offices have advised us that a minimum duration for field missions in response to Ebola Outbreak is 4 weeks, and 6 week missions are preferred. We are following this rule for some time now.

Would this be a possibility for Bob's deployment? Our technical units have recently introduced a position of the Laboratory coordinator, based in the countries affected by Ebola Outbreak and we believe that Bob will be great for this position.

Thank you again and we look forward to your response.

Best regards,

Armand on behalf of GOARN Operational Support Team

Global Outbreak Alert and Response Network Global Capacities, Alert and Response World Health Organization Avenue Appia 20 1211 Geneva 27, Switzerland

E-mail: goarn@who.int

From: LeDuc, James W. [mailto:jwleduc@utmb.edu]

Sent: Friday, 31 October 2014 6:44 p.m. **To:** DRURY, Patrick Anthony; goarn **Cc:** Ksiazek, Thomas G.; Cross, Robert W.

Subject: FW: WHO GOARN Program through UTMB

Importance: High

Pat, colleagues,

Please see letter of interest below from Dr Robert Cross indicating his willingness to deploy as part of the GOARN Ebola response. Bob is currently working in our BSL4 laboratories on Ebola and other highly pathogenic viruses and has experience working in Kenema, Sierra Leone. He has my strongest support and endorsement. Please feel free to contact him directly for further information or to start the process of UN training.

Thanks, Jim

James W. Le Duc, Ph.D.
Director
Galveston National Laboratory
University of Texas Medical Branch
Galveston, TX 77555-0610
(t) 409-266-6500
(f) 409-266-6810
jwleduc@utmb.edu

From: Cross, Robert W.

Sent: Friday, October 31, 2014 11:52 AM

To: LeDuc, James W. **Cc:** Ksiazek, Thomas G.

Subject: WHO GOARN Program through UTMB

Hi Dr. Leduc,

This email is to express my interest for involvement in the WHO GOARN program through UTMB. I feel my previous field and laboratory experience with high priority viruses makes me well suited to serve in an support role for the central mission of the GOARN. An example of why I might be suited for involvement in the WHO program would by my upcoming involvement in a research mission to Sierra Leone in collaboration with Tulane University and biotech firm, Corgenix.

552.111



This mission will take place from November 08-23, 2014. Though we will be on the ground a short time, I would gladly be willing to assist in any WHO GOARN related matters while I'm on the ground at this time, as appropriate. If for some reason, there is no immediate need for my services while I'm in country; I would gladly entertain prospects of involvement in future outbreak related missions through the WHO GOARN/UTMB umbrella.

Please see my attached CV and let me know if more information is needed.

Many thanks!

Bob Cross

Robert W. Cross, Ph.D., M.P.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324, L29030
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610

L: 409-266-6825 O:409-263-6904 rwcross@utmb.edu

<image001.png>

<EVD Laboratory Coordinator.docx>

Date: 10/18/2014 5:36:15 PM From: "Cross, Robert W."

To: "marzia@niaid.nih.gov" marzia@niaid.nih.gov

Subject: Salone trip question

Hi Andrea,

Hope you don't mind my contacting you, but I think you might be able to help me with a question. Since I've been to the area and have a more than fair level of field/lab experience, I've been offered an opportunity to travel to Kenema for a validation of rapid diagnostic tests developed by Tulane. My visit will be short, 2 weeks mid-Nov.

I'm about 80% sold on the idea of going, but am a little nervous about the prospect of having to deal with a 21 day self quarantine. This could end up being a difficult thing for me to deal with on multiple levels. Are you guys implementing anything like that?

Also, there is rumor that you are heading back sometime soon. It may be good for us to keep in contact if it turns out that I end up going.

Talk with you soon,

rwcross@utmb.edu

Bob

Robert W. Cross, Ph.D., MP.H.
Post Doctoral Fellow II: Geisbert Lab
Galveston National Laboratory
Rm. 5.324
Department of Microbiology and Immunology
University of Texas Medical Branch
301 University Boulevard
Mail Route: 10610
Galveston, Texas 77555-0610
L: 409-266-6825
O:409-263-6904

Date: 6/4/2014 10:14:25 AM From: "Cross, Robert W."

To: "Geisbert, Thomas W." twgeisbe@UTMB.EDU

Cc: "Mire, Chad" chmire@UTMB.EDU, "Garry, Robert F"

rfgarry@tulane.edu

Subject: Sierra Leone/Nigeria Contacts for Shipment

I just dug up this email from March. See email below....This should cover the Sierra Leone samples.

You'll need to contact Pan-pan Jiang or Christian Happi on the Nigerian samples in regard to who will be the shipper there. I only have emails below.

chappi@hsph.harvard.edu

ppjiang@broadinstitute.org

From: Moses, Lina M [mailto:lmoses2@tulane.edu]

Sent: Tuesday, March 25, 2014 2:36 AM

To: Cross, Robert W.; Ntiforo, Corrie; linammoses@gmail.com

Cc: Geisbert, Thomas W. **Subject:** RE: Call with Corrie

Bob, sounds like a good plan. When I get back to Kenema tomorrow, I will lean on Augustine and recruit Dr. Khan to put some muscle in as well. He wants these samples out as soon as possible.

Corrie, here is the information you requested:

- Entity Name: Kenema Government Hospital Lassa Fever Laboratory
- Complete Address: Combema Road, Kenema, Sierra Leone
- Facility Director: Augustine Goba
- Facility Director Telephone #232 76 757 859
- Facility Director Fax # (if you have one): None
- Facility Director email address: augstgoba@yahoo.com

I accidentally deleted Chad Mire from this email, but can't pull up his email with the slow internet. Can you please forward? Thanks. Lina

Date: 8/24/2014 2:30:05 PM From: "Cross, Robert W."

To: "vrr1@columbia.edu" vrr1@columbia.edu

Cc: "twiv@twiv.tv" twiv@twiv.tv

Subject: VHFC Crowd Sourcing EBOV/LASV hospital support

Hi Vincent,

I hope you don't mind my writing. In light of your recent coverage on the current west African EBOV outbreak, I wanted to bring to your attention a current issue one of the major hospitals dealing with the outbreak is having in hopes that you might pass this information on to the listeners of your many online programs (TWIV, TWIP, ect...). The Kenema Government Hospital in Sierra Leone has been an epicenter for field work and treatment of Lassa fever for well over 10 years. During much of this time, there has been much support from NIH and other US governmental entities to study the natural history and uncover potential routes for treatment for LASV and many other tropical viral infections. Unfortunately, the group there has recently received news that their major funding support from NIH would not be renewed. As you know, the grant writing and review cycle can take time from the point of submission to the final funding decision. The highly collaborative group that submitted the support grant, Viral Hemorrhagic Fever Consortium (http://vhfc.org/) submitted the request for funds prior to now expanding EBOV outbreak. To date, this site has processed over 95% of the patients and samples from this outbreak, but despite this heroic effort the funding has still not been renewed.

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