

**Sent:** Wed, 19 Jul 2017 17:26:59 -0700  
**Subject:** Fwd: Trip report  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>, Brooke Watson <watson@ecohealthalliance.org>

FYI on Costa Rica -- a detailed response to his other email sent specially to me will be coming soon with loads of attachments. I know Brooke has provided [REDACTED] with some technical assistance for that response -- thanks to you, Brooke. Not sure how this went from Nathan's contact for stewarding to my detailed-response-needed plate, but oh well!  
Jonna

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

**From:** Janzen, Daniel H <djanzen@sas.upenn.edu>  
**Date:** Thu, Jul 13, 2017 at 5:08 PM  
**Subject:** Trip report  
**To:** Román Macaya Hayes <rmacaya@rree.go.cr>  
**Cc:** "Hallwachs, Winnie" <whallwac@sas.upenn.edu>, Jake Athanas <jathanas@metabiota.com>, Nathan Wolfe <nwolfe@metabiota.com>, Dennis Carroll <dcarroll@usaid.gov>, Jonna Mazet [REDACTED] Eddy Rubin <erubin@metabiota.com>

13 July 2017  
UPenn

Hi, well, it was an interesting phone call for us (one hour), hope for them too. It would have been better for me in person (I would not have been so verbally clumsy), but it went as well as it could. We ended by my pointing out that (though I talked too much):

1) if we want to have Costa Rica be welcoming and friendly to being a Guinea Pig (or white rat) for a national or even local effort to find all the viruses in the mammals and waterfowl (their premature and very undeveloped innocent goal), then we do not start with the President and Ministers and Ph.D.s in the UCR and Academia, etc., but rather we start by explaining in detail the idea and project to the mandos medios and actual researchers the concept and mission and WHY, to get their buy-in in gov, UCR, UNA, ACG, CONAGEBIO, MINAE, SINAC, CONAC, etc. and once they are more or less on board, we move it up the bureaucratic chain into the upper fabric of the country, with COSTA RICA being a major driver in partnership with the internationals who want to fill their own agenda as well, for their global view. We would want select people at your level to KNOW about it, but for Costa Ricans to feel that they were doing it WITH help and collaboration from the international, rather than that the international is DOING IT TO Costa Rica, and CR sort of grants a permit to be the sandbox. I think that all of them grasped this concept, though I know from experience that there are aspects of its maturation that will be startling and require some adjustment on their part. Internationals are used to making expeditions "to the tropics", and this would be no expedition, but rather would be a integral part of the stages of a global virus effort, with CR being a pioneer both in the biopolitical sense and the technical sense. CR has spent the past 40+ years learning, imperfectly, how to be a partner as well as a friendly landing pad, and the idea under development here is maturing yet another stage/example for CR as well as for the "internationals".

2) they need to prepare a sort of crude draft Christmas list of the technology and results that they hope to obtain, so that when I am talking to people, I know what the GVP people have in mind, more or less. I will react to the realities of that by email, they will react back, and whatever we have by 3-4-5 august, I will use as part of trying this out on a powerful and heterogenous array of about 15-20 of the CR conservation and biodiversity development mafia and experienced soldiers that just by accident Winnie and I will be meeting in ACG on 3-4-5 aug to discuss the @#\$%^&\*Canal Seco, geothermia in the margin of ACG, the new proyecto de ley for allowing such things in the national parks, relationships of the ACG World Heritage Site, @#\$%^&\*death of INBio by gov, and other things related to getting UCR, gov, SINAC, etc. working together instead of like Japanese feudal castles of the 1800's. I will try the ideas out on them, see what the reaction is, and report back to Dennis, Eddy, Jonna, and Nathan (with a copy to you, which of course you are welcome to discuss with Pedro or Rodrigo or Gabriel or Luis Guillermo, but only as a forming concept, not a formal package proposition.

3) Winnie and I are certainly willing to fly this kite into CR airspace and test the turbulence. My goal of course is to, as their desires take form, look for ways that their agenda intersects with ours of "conservation through biodevelopment" with an ACG real world focus for starters (ACG has about 1000 species of vertebrates and CR about 2000, but I have never tried to



count up the select categories that they preliminarily desire, and then having it spread through out CR if it will. We started INBio that way, and you see what happened there. Not to be repeated. Of course, if INBio were what it was meant to be, and was until halfway through the previous administration, the group would be talking to INBio and Winnie and would just be commenting from the sidelines. No such luck at present. After the next election???

OK, that is the trip report for the moment. I go dormant on this until I hear more from them. THANK YOU for linking us all at ground level to their high flying dreams. They do have a serious chance of being realized if they do the biopolitics right - the technical side will fall into place with sweat equity and budget. I think they have focused their sights on too small a target, if the goal is finding the viruses (and other wee beasts such as cholera and malaria) that are happily living in wild vertebrates and of course will be constantly probing Homo sapiens, like it or not. There are LOTS of unappreciated vectors to help the viruses, and lots of unappreciated sources.

Smile. Dan and Winnie

Begin forwarded message:

**From:** Román Macaya Hayes **REDACTED**  
**Subject:** Re: Personnel Update for Tomorrow's Call with Nathan  
**Date:** July 13, 2017 at 6:11:14 PM EDT  
**To:** "Janzen, Daniel H" <[djanzen@sas.upenn.edu](mailto:djanzen@sas.upenn.edu)>

Dan,

Don't worry. I have plenty of things to fill my day. Good luck!

Best,

Roman

Sent from my iPhone



**From:** Jennifer Fluder <jfluder@usaid.gov>  
**Sent:** Mon, 8 Jan 2018 13:08:01 -0500  
**Subject:** Re: Roadmap Cartoon  
**To:** Dennis Carroll <dcarroll@usaid.gov>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, **REDACTED**, Nathan Wolfe <nwolfe@metabiota.com>, Eddy Rubin <erubin@metabiota.com>, Peter Daszak <daszak@ecohealthalliance.org>, Brooke Watson <watson@ecohealthalliance.org>, "Sacchetti, Ben" <Sacchetti.Ben@bcg.com>, "Stroman, Trish" <stroman.trish@bcg.com>

Thank you, Dennis!

On Mon, Jan 8, 2018 at 1:06 PM, Dennis Carroll <dcarroll@usaid.gov> wrote:

All, apologies for the delay. Attached is the milestone "cartoon" I referred to during our call. The axis is: month X 3 functional domains: refining our strategy, outreach, building partnership. I have then given 3 examples, one for each domain. These "domains" may not be exactly how we might want to capture the events/progress of the past year - Take look, offer your thoughts and open the dialogue.

d

On Mon, Jan 8, 2018 at 11:15 AM, Jennifer Fluder <jfluder@usaid.gov> wrote:

Hello Dennis,  
I hope that you had a great weekend.

Would you mind sharing the roadmap cartoon you showed Trish and I on Thursday?

Many thanks,  
Jen

--

Jen Fluder | Senior Innovation and Partnership Advisor  
**USAID** | Bureau for Global Health | Center for Accelerating Innovation and Impact  
[jfluder@usaid.gov](mailto:jfluder@usaid.gov) | [\(571\)551-7115](tel:(571)551-7115)

--

Dr. Dennis Carroll  
Director, Emerging Threats Program  
Bureau for Global Health  
U.S. Agency for International Development

**REDACTED**

--

Jen Fluder | Senior Innovation and Partnership Advisor  
**USAID** | Bureau for Global Health | Center for Accelerating Innovation and Impact  
[jfluder@usaid.gov](mailto:jfluder@usaid.gov) | [\(571\)551-7115](tel:(571)551-7115)



**From:** Nziza Julius [REDACTED]  
**Sent:** Sat, 21 Apr 2018 09:01:16 -0500  
**Subject:** Re: PREDICT Emerging Disease Insights - 2 pagers  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** "zlshi@wh.iov.cn" <zlshi@wh.iov.cn>, "dibesh@cmdn.org" <dibesh@cmdn.org>, Ariful Islam <arif@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>, Hongying Li <li@ecohealthalliance.org>, "ckjohnson@ucdavis.edu" <ckjohnson@ucdavis.edu>, Emily Hagan <hagan@ecohealthalliance.org>, Thomas Hughes <tom.hughes@ecohealthalliance.org>, Allison White <white@ecohealthalliance.org>, "olival@ecohealthalliance.org" <olival@ecohealthalliance.org>, Alice Latinne <latinne@ecohealthalliance.org>, [REDACTED] "tgoldstein@ucdavis.edu" <tgoldstein@ucdavis.edu>, "dmciver@metabiota.com" <dmciver@metabiota.com>, "ssilithammavong@metabiota.com" <ssilithammavong@metabiota.com>, "dveasna@pasteur-kh.org" <dveasna@pasteur-kh.org>, [REDACTED] [REDACTED] "afine@wcs.org" <afine@wcs.org>, "solson@wcs.org" <solson@wcs.org>, "jpi-pssp@indo.net.id" <jpi-pssp@indo.net.id>, "eshiilegdamba@wcs.org" <eshiilegdamba@wcs.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, [REDACTED] Debapriyo Chakraborty <chakraborty@ecohealthalliance.org>, [REDACTED] "murrays@si.edu" <murrays@si.edu>, "valituttoM@si.edu" <valituttoM@si.edu>, Patrick Dawson <dawson@ecohealthalliance.org>, [REDACTED] "ghazi@human-link.org" <ghazi@human-link.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, "abubasha@just.edu.jo" <abubasha@just.edu.jo>, "jayukekbong@metabiota.com" <jayukekbong@metabiota.com>, "mmouiche@mosaic.cm" <mmouiche@mosaic.cm>, Anne Laudisoit <laudisoit@ecohealthalliance.org>, "ksaylors@metabiota.com" <ksaylors@metabiota.com>, "pmulembakani@metabiota.com" <pmulembakani@metabiota.com>, [REDACTED] <ekambale@gorilladoctors.org>, "utamoufe@metabiota.com" <utamoufe@metabiota.com>, "kvgilardi@ucdavis.edu" <kvgilardi@ucdavis.edu>, [REDACTED] [REDACTED] [REDACTED] [REDACTED] "djwolking@ucdavis.edu" <djwolking@ucdavis.edu>, [REDACTED] [REDACTED] "kalpyjulien coulibaly@pasteur.ci" <kalpyjulien coulibaly@pasteur.ci>, [REDACTED] [REDACTED] "trkelly@ucdavis.edu" <trkelly@ucdavis.edu>, "cmonagin@ucdavis.edu" <cmonagin@ucdavis.edu>, "jabelkhiria@ucdavis.edu" <jabelkhiria@ucdavis.edu>, [REDACTED] [REDACTED] [REDACTED] Jim Desmond <desmond@ecohealthalliance.org>, "daouda.ndiaye@ucad.edu.sn" <daouda.ndiaye@ucad.edu.sn>, [REDACTED] [REDACTED] "bhbird@ucdavis.edu" <bhbird@ucdavis.edu>, "ZimmermanD@si.edu" <ZimmermanD@si.edu>, "jkamau@primateresearch.org" <jkamau@primateresearch.org>, [REDACTED] "wasmith@ucdavis.edu" <wasmith@ucdavis.edu>, "jklane@ucdavis.edu" <jklane@ucdavis.edu>, "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, Alison Andre <andre@ecohealthalliance.org>, Aleksei Chmura <chmura@ecohealthalliance.org>, Anna Willoughby <willoughby@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Noam Ross <ross@ecohealthalliance.org>

Dear Peter-  
Thanks so much for this information. We shall share in Rwanda.  
Kind regards.  
Julius

On Thu, Apr 19, 2018 at 12:21 PM, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

Dear PREDICT global team leads, regional leads and country coordinators,

I am delighted to share with you the latest Emerging Disease Insights (EDIs) 2-pagers from our PREDICT Modeling and Analytics Team. These are 2-page reports on the analyses that our team is doing to guide surveillance and test out ideas about the risk of emergence of novel PREDICT viruses we discover. These three focus on:

1. Measuring viral discovery: Using the viral accumulation curves from PREDICT 1 to determine how many samples we need to collect and test to discover the majority of viruses in a host species
2. Identifying the next Zika virus: Analyzing all known flaviviruses to assess which ones have the characteristics that could allow them to emerge and spread.
3. Economic case for the GVP: Economic analysis of the Global Virome Project sampling and testing strategy, with an estimate of return-on-investment.



These EDIs are intended to be easily understood, provide an interesting background story based on PREDICT that demonstrates how we're using state-of-the-art modeling and analytics, and our data from PREDICT, to better understand the risk of disease emergence globally. Please share them widely with your staff, colleagues and partners! They will also be available publicly from [livescience.ecohealthalliance.org](https://livescience.ecohealthalliance.org), as well as on Basecamp, of course.

We are actively working on other Emerging Disease Insights to be completed this and next year, so please send any ideas you may have: Comments are very welcome!

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance

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New York, NY 10001

Tel. +1 212-380-4474

[www.ecohealthalliance.org](https://www.ecohealthalliance.org)

[@PeterDaszak](#)

[@EcoHealthNYC](#)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*



**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Fri, 10 Aug 2018 12:57:43 -0700  
**Subject:** Re: Smithsonian presentation  
**To:** "Valitutto, Marc" <ValituttoM@si.edu>  
**Cc:** Brooke Genovese <bgenovese@ucdavis.edu>, Alisa Pereira <apereira@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>, Cara Chrisman <cchrisman@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Murray, Suzan" <MurrayS@si.edu>

Thanks, Marc.

For now, let's keep operating on the assumption that we'll stay with the Sept date.

*Andrew P. Clements, Ph.D.*  
*Senior Scientific Advisor*  
*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*  
*U.S. Agency for International Development*  
*Mobile phone:* **REDACTED**  
*Email:* [aclements@usaid.gov](mailto:aclements@usaid.gov)

On Aug 10, 2018, at 7:45 PM, Valitutto, Marc <[ValituttoM@si.edu](mailto:ValituttoM@si.edu)> wrote:

Hi All,

I can check on the castle date availability as well as the scheduled AV support as suggested. There is no viewing calendar and all requests are via email, so I'll hope they respond soon.

Marc

--

Marc Valitutto, VMD

**REDACTED**

Sent from my iPhone

On Aug 10, 2018, at 1:39 PM, Brooke Genovese <[bgenovese@ucdavis.edu](mailto:bgenovese@ucdavis.edu)> wrote:

Hi Andrew & Alisa,

Chiming in here on Jonna's behalf: we're not sure about our ability to reschedule and secure a space in the castle for the meeting. The week of September 10<sup>th</sup> was also a good week for the rest of EB, so not sure what their availability becomes if we change the date.

Earlier in the week could potentially work on our end – I know Jonna accepted talk commitments surrounding the 13<sup>th</sup>, but could make the afternoon on the 12<sup>th</sup> work. Afternoon on the 11<sup>th</sup> is a stretch.

Marc kindly secured the castle for the 13<sup>th</sup>. Is it easy to view the availability for the castle on the dates/times above, providing they're worthwhile options for Andrew/Alisa?

-Brooke

---

**From:** <**REDACTED**> on behalf of Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>

**Date:** Friday, August 10, 2018 at 10:31 AM

**To:** Brooke Genovese <[bgenovese@ucdavis.edu](mailto:bgenovese@ucdavis.edu)>

**Subject:** Fwd: Smithsonian presentation

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

**From:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>

**Date:** Fri, Aug 10, 2018 at 8:48 AM

UCDUSR0009511



Subject: Re: Smithsonian presentation

To: "William B. Karesh" <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>

Cc: Jonna Mazet <[kmazet@ucdavis.edu](mailto:kmazet@ucdavis.edu)>, "[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)" <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)>, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, "[MurrayS@si.edu](mailto:MurrayS@si.edu)" <[MurrayS@si.edu](mailto:MurrayS@si.edu)>, "[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)" <[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)>, Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>

Thanks, Billy.

*Andrew P. Clements, Ph.D.*

*Senior Scientific Advisor*

*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*

*U.S. Agency for International Development*

*Mobile phone: [REDACTED]*

*Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Aug 10, 2018, at 5:05 PM, William B. Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)> wrote:

It was a confluence of a few concepts that came up at the Midyear meeting in Napa, including : people's availability, early enough to stimulate enthusiasm about an EPT-3, and not too late to be heavy into the Mid-term election cycle if we want to get Hill staffers and some attention there.

Sent from my iPhone

BK

**William B. Karesh, D.V.M**

*Executive Vice President for Health and Policy*

EcoHealth Alliance

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President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

***EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.***

On Aug 10, 2018, at 10:29 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi all,

Turns out Dennis, Alisa, and I will not be available for this presentation on the current date.

Can you remind me if there was a specific reason you/we selected this date?  
Would a future date be possible (assuming there is availability at the castle)?

Thanks!

Andrew

*Andrew P. Clements, Ph.D.*

*Senior Scientific Advisor*

*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*

*U.S. Agency for International Development*

*Mobile phone:* **REDACTED**

*Email:* [aclements@usaid.gov](mailto:aclements@usaid.gov)



**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Mon, 17 Dec 2018 17:57:43 +0100  
**Subject:** Re: Comment from Liberia mission  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Cara Chrisman <cchrisman@usaid.gov>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>

Thanks. Send me A and B whenever he's available.

Presumably he be in Monrovia in 2019 in time for the release of the findings.

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: REDACTED  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

On Mon, Dec 17, 2018 at 5:48 PM Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Andrew,  
Jim has been working with the government a bunch, but we'd like him to give us the details on involvement in this specific plan.  
He's en route to New York at the moment, so we can get back to you tomorrow with info on A&B. I would say high likelihood on C.  
Happy Holidays,  
Jonna

On Mon, Dec 17, 2018 at 8:35 AM Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi Jonna,

From the Mission: *"Currently, we are working with partners to develop Liberia's first national plan for animal health surveillance. A key element of that plan includes the capability to early detect, in situ, priority zoonotic viruses, e.g. yellow fever, lassa fever, ebola\* et al."*

- A) Is Predict aware of the plan being developed?
- B) Is Predict contributing to its development?
- C) How likely is Liberia to be on the list of Predict extension countries? 100%, high, medium, low, zero.

Thanks!

Andrew

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: REDACTED  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

**Sent:** Tue, 28 Apr 2020 15:10:24 +0000  
**From:** sfh9@georgetown.edu  
**To:** onehealthnextgen@ucdavis.edu, alexandrazuber@atahealthstrategies.com, tgoldstein@ucdavis.edu, Peter Daszak <daszak@ecohealthalliance.org>, btadao@vnua.edu.vn, f.castillo@berkeley.edu, jkmazet@ucdavis.edu, andre@ecohealthalliance.org, karesh@ecohealthalliance.org  
**Subject:** [onehealthnextgen] Invitation: SWOT Board Member Interview Bui Tran Anh Dao @ Fri May 1, 2020 8am - 9am (EDT) (onehealthnextgen@ucdavis.edu)  
[invite.ics](#)

**You have been invited to the following event.**  
**SWOT Board Member Interview Bui Tran Anh Dao**  
When Fri May 1, 2020 8am – 9am Eastern Time - New York

Where **REDACTED**

Calendar onehealthnextgen@ucdavis.edu

- Who
- sfh9@georgetown.edu - organizer
  - alexandrazuber@atahealthstrategies.com
  - tgoldstein@ucdavis.edu
  - Peter Daszak
  - btadao@vnua.edu.vn
  - f.castillo@berkeley.edu
  - jkmazet@ucdavis.edu
  - andre@ecohealthalliance.org
  - onehealthnextgen@ucdavis.edu
  - karesh@ecohealthalliance.org

[more details »](#)  
Dear Dr. Bui Tran Anh Dao,  
We are delighted that you volunteered to participate in an interview. I will be sending the interview questions shortly, for your reference. As a reminder, this interview is not for research purposes. This interview is part of a larger data gathering exercise by the global team, which is designed to summarize the perspectives of SEAOHUN Secretariat Staff, OHUN country coordinators, and Executive and Foundation Board members on the strengths, weaknesses, opportunities and threats ("SWOT") facing SEAOHUN's organizational sustainability. The purpose is to inform the SEAOHUN Business Plan that is required for submission to USAID at the end of Year 1 of the OHW-NG initiative. For that reason, I hope you feel very comfortable throughout the interview and ask questions or add comments as you would like.  
With your permission, I'd like to record the interview, so myself and a global team member can transcribe the comments and make sure we don't miss anything. This recording will be maintained in my Zoom account, and can be viewed only by select global team members working on this activity.  
We will consolidate findings from this exercise in a presentation for SEAOHUN Secretariat staff and OHUNs in the coming weeks, to assist us to prioritize activities to build SEAOHUN's organizational capacity over Year 1. We will not attribute any comments to you as an individual, but rather to "a SEAOHUN Board member". So we hope you will speak comfortably and candidly.

Please contact me with any questions.  
Sincerely,  
Sam HalabiSam Halabi is inviting you to a scheduled Zoom meeting.

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Going (onehealthnextgen@ucdavis.edu)? [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account onehealthnextgen@ucdavis.edu because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://www.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

**From:** Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>  
**To:** Woutrina A Smith <wasmith@ucdavis.edu>, Oladele Ogunseitan <oladele.ogunseitan@uci.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "William B. Karesh" <Karesh@ecohealthalliance.org>, "mr84@columbia.edu" <mr84@columbia.edu>, alexandra zuber <alexandrazuber@atahealthstrategies.com>, Matthew Blake <mblake@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Terra Kelly <trkelly@ucdavis.edu>, Jaber Amine Belkhiria <jabelkhiria@ucdavis.edu>, Elizabeth Leasure <ealeasure@UCDAVIS.EDU>, Jonna Mazet <jkmazet@ucdavis.edu>, "McNeil, Carrie S." <csmcnei@sandia.gov>, Jutta Lehmer <JLehmer@salud.unm.edu>, Omar Romero-hernandez <oromero@haas.berkeley.edu>, Bruce Baird Struminger <BStruminger@salud.unm.edu>, Federico Castillo <f.castillo@berkeley.edu>, Ndola PRATA <ndola@berkeley.edu>, "Tiffany Harris, PhD, MS" <th2604@columbia.edu>, "Costa, Cristiane" <co123@cumc.columbia.edu>, "Amaya, Idalia M." <ima2107@cumc.columbia.edu>, Sam Halabi <sfh9@georgetown.edu>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <machalaba@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>  
**Cc:** onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>  
**Subject:** Reminder: OHW-NG Executive Board Call May 20th, 11am PST/2pm EST  
**Sent:** Tue, 19 May 2020 17:10:22 +0000  
[OHW-NG EB Call Agenda 5.20.20.docx](#)  
[ECHO session May20-21 2020 AFROHUN.pdf](#)  
[ECHO session May20-21 2020 SEAOHUN.pdf](#)  
[ECHO session May20-21 2020 AFROHUN fr.pdf](#)

Hello everyone,

Please see attached and below for this week's OHW-NG EB call agenda. ECHO flyers included for this week's sessions on "Diagnostic Testing Approaches for COVID-19".

Stay safe and healthy,

Corina

OHW-NG EB Zoom Meeting  
May 20th, 2020 11-12 AM US/Pacific

[Join Zoom Meeting](#)

**REDACTED**

Meeting ID: **REDACTED**

### 1. Administrative items

- UCD updates from USAID
- UCD Admin updates
- Supplemental funding opportunities

### 2. COVID-19 updates

- Plan for tracking COVID-19 activities
- ECHO Sessions - Future scheduling and topics for AFROHUN/SEAOHUN:
  - May 21: "Diagnostic testing approaches for COVID-19"
  - June 4: "Immunity issues and interventions for COVID-19"
  - June 18: "One Health approaches addressing COVID-19 origins and spillover"

### 3. Objective Team/Network Updates

- AFROHUN - work from home format and Secretariat held technical meetings with country managers, planning ECHO Immersion Training, moving into next phase of content curation exercise, updating workplans
- SEAOHUN - work from home format, working on content curation exercise, SWOT, OCA and NUPAS, updating workplans
- Objective 1: Content curation exercise, OH Academy and SOHIC digital competition
- Objective 2: KM needs assessment with Networks and Competency assessment toolkits; Alumni tracking best practices; online survey for tracking OH coordinating bodies and University/Network participation



- Objective 3: Remote business retreat sessions - SWOT, NUPAS and OCA

#### 4. Conference/Calendar updates

#### 5. AOB

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OHW-NG EB Zoom Meeting  
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**USAID**  
FROM THE AMERICAN PEOPLE



# COVID-19 ONE HEALTH UPDATES

**SESSION TOPIC:** DIAGNOSTIC TESTING APPROACHES FOR COVID-19

**MAY 21, 2020**

## AGENDA

### Welcome

- Woutrina Smith, *UC Davis*
- William Bazeyo, *AFROHUN Secretariat*

### Global Updates

- Brian Bird, *UC Davis*

### Overview on Diagnostic Approaches

- Jilian Sacks, *Pandemic Preparedness at FIND*

### Panel Discussion

- **UGANDA:** Moses Joloba *Makerere University*
- **SENEGAL:** Ousmane Faye *Institut Pasteur de Dakar*

### Closing

- Woutrina Smith, *UC Davis*
- William Bazeyo, *AFROHUN Secretariat*
- Bruce Struminger, *ECHO*

### PANEL MODERATOR

- Brian Bird, *UC Davis*

### FACILITATORS

- Bruce Struminger, *ECHO*
- Woutrina Smith, *UC Davis*

*\*French translation of the session also available*



## UPCOMING SESSIONS

- **June 3/4:** Immunity issues & interventions for COVID-19
- **June 17/18:** One Health approaches addressing COVID-19 origins and spillover



Participants will be able to receive a digital attestation (proof of participation) immediately after the session by using a mobile App called **PDA-Participant**.

*Please take a minute to install the app before the session to benefit from easy access to materials.*

## AFRICA SESSION

**THURSDAY, MAY 21**

**US:** 9:30 am EDT | 7:30 am MDT | 6:30 am PDT

**Africa:** 1:30 pm GMT | 2:30 pm WAT | 3:30 pm CAT

Visit our website for free pre-registration and connection information: [ohwng.org](http://ohwng.org)

**REGISTER HERE**

Questions? Contact [onehealthnextgen@ucdavis.edu](mailto:onehealthnextgen@ucdavis.edu)



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# MISE À JOUR ONE HEALTH SUR LA COVID-19

THÈME DE LA SESSION: VUE D'ENSEMBLE SUR LES TESTS DE DIAGNOSTIQUE POUR LA COVID-19

21 MAI 2020

## ORDRE DU JOUR

### Mot de Bienvenue

- Woutrina Smith, *UC Davis*
- William Bazeyo, *AFROHUN Secretariat*

### Mises à jour sur la Situation Mondiale

- Brian Bird, *UC Davis*

### Vue d'Ensemble sur les Approches de Diagnostique

- Jilian Sacks, *Chargé de la préparation pandémique chez FIND*

### Table Ronde

- **UGANDA:** Moses Joloba *Université Makerere*
- **SÉNÉGAL:** Ousmane Faye *Institut Pasteur de Dakar*

### Clôture

- Woutrina Smith, *UC Davis*
- William Bazeyo, *AFROHUN Secretariat*
- Bruce Struminger, *ECHO*

### MODÉRATEUR

- Brian Bird, *UC Davis*

### FACILITATEURS

- Bruce Struminger, *ECHO*
- Woutrina Smith, *UC Davis*

\*Traduction en Français disponible



### SESSIONS À VENIR

- **3/4 JUIN:** Immunité et interventions lors du COVID-19
- **17/18 JUIN:** Approches One Health abordant le spillover et les origines du COVID-19



Les participants pourront recevoir une attestation de participation numérique immédiatement après la session grâce à l'application mobile **PDA-Participant**

Veuillez prendre une minute pour installer l'application avant la session afin de bénéficier d'un accès facile au matériel.

## SESSION AFRIQUE

JEUDI 21 MAI

États-Unis: 9h30 EDT | 7h30 MDT | 6h30 PDT  
Afrique: 13h30 GMT | 14h30 WAT | 15h30 CAT

Visitez notre site Web pour plus d'informations sur la pré-inscription gratuites: [ohwng.org](http://ohwng.org)

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Questions? Contact [onehealthnextgen@ucdavis.edu](mailto:onehealthnextgen@ucdavis.edu)



L'École de médecine de l'Université du Nouveau-Mexique, Office de la formation médicale continue, est accréditée par le Conseil d'accréditation pour la formation médicale continue pour dispenser une formation médicale continue aux médecins. L'Office de la formation médicale continue désigne cette activité en direct pour un maximum de 1,5 crédit (s) de catégorie 1 AMA PRA™. Les médecins doivent réclamer le crédit proportionnellement à l'étendue de leur participation à l'activité.





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**SEAOHUN**  
Southeast Asia One Health  
University Network

# COVID-19 ONE HEALTH UPDATES

**SESSION TOPIC:** DIAGNOSTIC TESTING APPROACHES FOR COVID-19

**MAY 20/21, 2020**

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- Woutrina Smith, *UC Davis*
- Vipat Kuruchittham, *SEAOHUN Secretariat*

### Global Updates

- Brian Bird, *UC Davis*

### Overview on Diagnostic Approaches

- Jilian Sacks, *Pandemic Preparedness at FIND*

### Panel Discussion

- **MALAYSIA:** Sazaly Bin Abu Bakar *University of Malaysia*
- **THAILAND:** Pornsawan Leungwutiwong *Mahidol University*
- **VIETNAM:** Nguyen Thi Lan Anh *National Institute of Hygiene & Epidemiology*

### Closing

- Woutrina Smith, *UC Davis*
- Vipat Kuruchittham, *SEAOHUN Secretariat*
- Bruce Struminger, *ECHO*

### PANEL MODERATOR

- Brian Bird, *UC Davis*

### FACILITATORS

- Bruce Struminger, *ECHO*
- Woutrina Smith, *UC Davis*



## UPCOMING SESSIONS

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*Please take a minute to install the app before the session to benefit from easy access to materials.*

## SOUTHEAST ASIA SESSION

**WEDNESDAY, MAY 20 (USA)**

**THURSDAY, MAY 21 (SE ASIA)**

**US:** 9 pm EDT | 7 pm MDT | 6 pm PDT

**SE Asia:** 8 am ICT | 9 am MYT | 9 am PHT

Visit our website for free pre-registration and connection information: [ohwng.org](http://ohwng.org)

**REGISTER HERE**

Questions? Contact [onehealthnextgen@ucdavis.edu](mailto:onehealthnextgen@ucdavis.edu)



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**From:** Kevin Olival <olival@ecohealthalliance.org>  
**To:** Joko PAMUNGKAS <jpi-pssp@indo.net.id>  
**CC:** Ava Sullivan <sullivan@ecohealthalliance.org>; Tammie O'Rourke <torourke@labyrinthgh.com>; David J Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@ucdavis.edu>; Jonna Mazet <jkmazet@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>; Aleksei Avery Chmura <chmura@ecohealthalliance.org>; Peter Daszak <daszak@ecohealthalliance.org>  
**Sent:** 8/11/2020 11:41:24 AM  
**Subject:** Re: Action Plan for Indonesia Government Report Approval

Thank you very much for the update Imung. Despite the obstacles, I appreciate your persistence with this important issue.

As we discussed, I'll be sure to work with you over the next 1-2 days to review the presentation for Thursday and help however else needed to facilitate the Director signing off on our PREDICT wildlife findings.

Best regards,  
Kevin

**Kevin J. Olival, PhD**

*Vice President for Research*

EcoHealth Alliance  
520 Eighth Avenue, Suite 1201  
New York, NY 10018

1.212.380.4478 (direct)  
1.917.856.3900 (mobile)  
1.212.380.4465 (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation.*

On Aug 11, 2020, at 12:35 AM, JoKo Pamungkas <jpi-pssp@indo.net.id> wrote:

Dear All,

First of all, I personally send my apology for all the delay in getting the reports approved for release by the Indonesian authority. Despite of how hard I've been trying to pursue through the DG, all ended up with no success. I take and consider this as my failure as country coordinator in approaching the DG, from whichever angles I have tried. Once again I apologized.

Last week, after so many trials in contacting the Direktorat Kesehatan Hewan/ Dirkeswan (Director of Animal Health, one echelone level under the DG) finally I was able to speak with him on the phone and pushed him to accepting my request to sign the data release approval. It wasn't easy either to convince him that he could sign the approval, instead of the DG. One rationale or objection that he used and persisted in avoiding it was because according to the Indonesia's Law #41 from year 2014, the national veterinary authority is at the DG level. I made him convinced that for PREDICT global consortium it will not matter, so finally he agreed, and further decided that the presentation that I will need to make is to be done Thursday this week. That was from our whatsapp messages exchange last week following our phone conversation, and only today I had the official letter from him for the event (attached).

I will try my best to get the approval by the end of this month as reminded by Tammy. Thank you all for your patience and continuous supports.

Best regards,  
Imung.

**Dr. drh. Joko Pamungkas, MSc.**

- Senior Scientist, Primate Research Center  
- Associate Professor, Faculty of Veterinary Medicine  
IPB University  
Bogor - Indonesia

62.251.8320417 (office)  
62.251.8360712 (fax)  
62.812.8433208 (whatsapp/ mobile)

Skype: jok041959

On 5 Aug 2020, at 00.37, Tammie O'Rourke <[torourke@labyrinthgh.com](mailto:torourke@labyrinthgh.com)> wrote:

Hi Ava,  
Thanks for the update. Just to clarify, the deadline for the data approvals is August 30th. I need the month of September to work on getting all the data into the DDL before the end of September.  
Many thanks,  
Tammie

On Mon, Aug 3, 2020 at 12:15 PM Ava Sullivan <[sullivan@ecohealthalliance.org](mailto:sullivan@ecohealthalliance.org)> wrote:  
Hello,

Below is the agreed upon action plan for achieving approval of the Indonesia viral results. Imung, thank you for your previous and multiple past attempts to gain approval through changes in points of contact, varying agendas, and other challenges. We also appreciate your understanding that we are up against a hard deadline of the end of September, a deadline which includes Tammie getting the data into the DDL, so we have even less time than that to gain approval itself.

I have looped in the above group so that we can document this effort and ensure all are aware of the ongoing efforts. We are also here as resources if you run into challenges as we enact this plan over the next few weeks. We look forward to resolving this issue.

Thanks,  
Ava

Action Plan for Indonesia Government Report Approval:

- 1) IP to discuss with Deputy DG to ascertain
  - a. Nature of delay at DG level (active, or passive?)
  - b. If we can get final sign off from Director level, instead of DG
  - c. If so, available times to schedule meeting with Director, otherwise with DG
- 2) IP to schedule a presentation with Dr. drh. I Ketut Diamita, Director General of Livestock and Animal Health Services at the Ministry of Agriculture and relevant director level leadership

- a. The meeting must be in the next two weeks
- b. The meeting will present unapproved viral findings
- c. The meeting will be tailored to address the interest of Indonesian researchers and the benefits
- d. The meeting will be recorded for posterity, in case the DG or Directors need to miss it at the last minute
- e. The meeting will contain a review session for questions and concerns
- f. The meeting will present a timeline for result approval with the aim of obtaining verbal approval on the call

- i. (eg timeline could include: ‘Two-week review period after the presentation. If we do not hear back, the results will be considered approved)

3) There must be a contingency plan for the live zoom meeting built into the scheduling process

- a. Eg (If the in-person meeting cannot be made within two weeks with the DG, a zoom meeting between IP and the Deputy DG and any other relevant leadership will move forward, and a recording of results sharing presentation will be shared and given a 2 week review period.)

4) KJO/AS will share this plan with UCD on Monday

---

Ava Sullivan  
*Project Manager and Research Assistant*

EcoHealth Alliance  
 520 Eighth Avenue – Suite 1200  
 New York, NY 10018  
 607-280-7669 (mobile)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

***EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation***

--  
 Tammie O'Rourke  
 Labyrinth Global Health  
 Systems Integrator  
 Emerging Pandemic Threats - PREDICT Program  
 tel +1-250-618-2460



**Sent:** Thu, 3 Sep 2020 12:16:46 -0700  
**Subject:** Re: GVP & Predict twitter accounts both suspended right now.  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** David Wolking <djwolking@ucdavis.edu>, "Johnson Christine Kreuder (ckjohnson@ucdavis.edu)" <ckjohnson@ucdavis.edu>, Robert Kessler <kessler@ecohealthalliance.org>, Eunah Regina Cho <eecho@ucdavis.edu>, Matt Blake <mblake@ucdavis.edu>

Hi Peter,  
I think David and Eunah replied to you separately, but just to make sure to close the loop....  
There are no funding or other concerns. We've been trying to fix for months. My account was also suspended, but I was able to get it fixed, even though I'm not really using it.

Matt believes that the suspensions are actually due to some flagging or reporting of false abuse (or similar) from the same "conspiracy people" to which you refer. It's been months for PREDICT now, with nothing but BS from Twitter.

It's certainly not for lack of our trying to fix it! Eunah has submitted multiple requests (our own @OneHealthLab account has also been suspended)—but as far as we're aware they haven't listed any specific reasons for the suspension.

Frustratingly, if we send another request it says our cases are active (assuming that means currently under review) but it's been months with no updates. Eunah also suspects security issues. Pranav on our team says his sister-in-law works for Twitter HQ. He's asked her to help, and she says she'll look into the reasons for suspension and try to get our accounts restored. If Robert has contacts or ideas, we'd appreciate the help.

Thanks,  
Jonna

On Wed, Sep 2, 2020 at 8:31 PM Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

I'm assuming you know about this but right now both @Globalvirome and @Predictproject are suspended by Twitter. Can Robert Kessler help work with you and Twitter to get them both back up and functioning? If this is some funding issue or some liability issue with UCD, we can host them or put them onto a single person's name.

It's getting traction with the conspiracy people out there who, surprise surprise, believe this is something to do with us releasing pandemic viruses. It would be really good to get them back up so we don't create a story out of nothing.

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance

520 Eighth Avenue, Suite 1200

New York, NY 10018-6507

USA

Tel.: +1-212-380-4474

Website: [www.ecohealthalliance.org](http://www.ecohealthalliance.org)

Twitter: [@PeterDaszak](https://twitter.com/PeterDaszak)

*EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation*

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Cara Chrisman <cchrisman@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, Dennis Carroll <dcarroll@usaid.gov>, Brooke Watson <watson@ecohealthalliance.org>, Elizabeth S Chase <eschase@ucdavis.edu>  
**Cc:** Nathan Wolfe <nwolfe@metabiota.com>, Alison Andre <andre@ecohealthalliance.org>, Taylor Elnicki <telnicki@metabiota.com>, Rebecca Benmahdi <rbenmahdi@metabiota.com>, Katherine Leasure <kaleasure@ucdavis.edu>, Cassandra Louis Duthil <clouisduthil@usaid.gov>  
**Subject:** San Francisco conf call on Thursday Jan 26th  
**Sent:** Thu, 5 Jan 2017 18:09:25 +0000

Just letting you know that my plane gets into Newark around 12.30pm on Jan 26<sup>th</sup> (Thursday), so I can do a conference call with you to discuss Beijing agenda issues anytime between 1.30pm and 5.30pm on Thursday Eastern time. I have a Board dinner at 6pm that I can't avoid unfortunately...

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

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[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

**From:** Cara Chrisman [mailto:cchrisman@usaid.gov]  
**Sent:** Thursday, January 5, 2017 10:55 AM  
**To:** Jonna Mazet; Peter Daszak; Eddy Rubin; Dennis Carroll; Brooke Watson; Elizabeth S Chase  
**Cc:** Nathan Wolfe; Alison Andre; Taylor Elnicki; Rebecca Benmahdi; Katherine Leasure; Cassandra Louis Duthil  
**Subject:** Today's GVP Call - Agenda + Background Info

Hi All,

Happy New Year! Looking forward to speaking at our regular time today. Our understanding is that Nathan will not participate today and that Jonna has a conflict and will likely join late or depart early.

Please see below the agenda below, as well as some background information.

Best,  
Cara

### Agenda

1. SF
2. Beijing
  - WG prep
  - CBD follow up
  - WT working group on sample collection etc
3. Pitch Deck



- eco-zone modelling
  - sample sizes vs \$\$
4. Paper
  5. Managing requests
  6. As the Virome Turns

## Background for Item #5

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

From: **Jane Homan** <[jane\\_homan@eigenbio.com](mailto:jane_homan@eigenbio.com)>  
Date: Tue, Jan 3, 2017 at 11:12 PM  
Subject: Immunomes for the Global Virome  
To: "[dc Carroll@usaid.gov](mailto:dc Carroll@usaid.gov)" <[dc Carroll@usaid.gov](mailto:dc Carroll@usaid.gov)>

Dear Dr. Carroll:

Thanks to an article published recently in STAT, I spent a bit of time over the holidays learning a little about the effort you are spearheading to “characterize all viruses”. Exciting and far sighted. The question is “then what?”...

I believe that applied math technology we have developed at EigenBio may be an asset that can complement this effort, and also provide a bridge to understanding possible pathogenicity and development of interventions, as needed.

Briefly, we work in computational immunology and have developed a high throughput platform that allows us to rapidly characterize and integrate many facets of the immunome of individual proteins and of whole microbial proteomes. This allows us to identify epitopes of relevance to vaccine and diagnostic development, and also to evaluate which may be potential immunosuppressive motifs contributing to immune evasion, virulence, and epitope cross reactivity. We have worked with a wide range of pathogen proteomes (viral, bacterial, parasitic) as well as cancer neoantigens, autoimmune diseases, and biopharmaceuticals. In looking at large datasets of viruses (influenza, flaviviruses, HPV as examples), our analysis has provided some interesting insights into possible drivers of pathogenesis. It has also given us an appreciation of “epitope ecosystems” and possible consequences of disruption. We currently have work on going with DTRA on bacteria of interest.

While the genesis of our programs was for design of recombinant proteins, my own interest and prior experience is in epidemiology; as a veterinarian with extensive international experience, I’d love the chance to put our programs to work in the big data molecular epidemiology mission you have embarked on.

The input to our algorithms for each protein is simply amino acid fastas, so in essence as soon as a sequence is available, we can begin to characterize the organism and provide information on potential approaches to intervention. The concept of hundreds of thousands of viruses really doesn’t phase us!

I have attached a very short general overview. I would be interested in learning more about the project scope and discussing how we might contribute as you move forward. Are you available for a telephone call? If a face to face meeting (and demo!) is appropriate I will likely be in DC the second week of Feb for a DTRA meeting, otherwise I’d be happy to show you what we have via a webinar.

Kind regards

Jane Homan

\*\*\*\*\*

Jane Homan, PhD, MRCVS  
Chief Executive Officer  
EigenBio LLC  
3591 Anderson Street, Suite 218  
Madison, WI 53704  
Tel: [608 310 9540](tel:6083109540)  
Fax: [608 310 9544](tel:6083109544)  
[jane\\_homan@eigenbio.com](mailto:jane_homan@eigenbio.com)

[jane\\_homan@iogenetics.com](mailto:jane_homan@iogenetics.com)  
[www.iogenetics.com](http://www.iogenetics.com)  
[www.eigenbio.com](http://www.eigenbio.com)  
\*\*\*\*\*

Cara J. Chrisman, PhD  
Senior Infectious Diseases Technical Advisor  
Emerging Threats Division  
Office of Infectious Disease  
Bureau for Global Health  
U.S. Agency for International Development (USAID)

REDACTED

**From:** Amanda Fuchs <fuchs@ecohealthalliance.org>  
**Sent:** Tue, 17 Jan 2017 14:23:51 -0500  
**Subject:** Re: feedback for Nature EE  
**To:** **REDACTED**  
**Cc:** "William B. Karesh" <karesh@ecohealthalliance.org>, Elizabeth S Chase <eschase@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Catherine Machalaba <machalaba@ecohealthalliance.org>

The caption for the photo from Dr. Karesh is "Adult male mandrill hunted in Gabon to be sold for food." Thank you.  
Best,

**Amanda Fuchs, LMSW**

*Administrative Assistant to the Executive Vice President for Health & Policy*

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New York, NY 10001

[1.212.380.4470](tel:1.212.380.4470) (direct)  
[1.212.380.4465](tel:1.212.380.4465) (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*Communications Coordinator, Future Earth oneHEALTH Project*

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Fri, Jan 13, 2017 at 8:03 PM, Catherine Machalaba <[machalaba@ecohealthalliance.org](mailto:machalaba@ecohealthalliance.org)> wrote:

Dear Billy,

Any chance you happen to have the info below requested from the journalist regarding Paul Telfer's mandrill photo?

Liz, I've copied Amanda who supports Billy — she will kindly make sure to track this as I am traveling.

Thanks all!

Best,  
Catherine

On Jan 13, 2017, at 5:57 PM, Elizabeth S Chase <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)> wrote:

Greetings Catherine,

The reporter Karl Grueber, who has asked to use the image of the hunter and Mandrill, taken by Dr. Paul Telfer, is in need of additional information about the image. Specifically he is asking for: (from his email below)

About this picture of the hunter with the Mandrill, I was wondering if you could help me draft a short legend for the photo... maybe giving details of where the mandrill was captured? and how many people it fed or what was done with it? or something along those lines?

Since Dr. Karesh has already given permission and provided a high res version of the image, Jonna is hoping that perhaps he will have more detailed information and be able to help the reporter with the legend/story line for the image. Unfortunately, she simply does not have the information that Karl is looking for. Can you please assist?

Thank you, Liz Chase





PHOTO BY PAUL T. TELFER

**Liz Chase**

Executive Assistant to Dr. Jonna Mazet  
One Health Institute  
University of California, Davis

[530-752-3630](tel:530-752-3630)

[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)

**From:** [REDACTED] **On Behalf Of** Jonna Mazet

**Sent:** Friday, January 13, 2017 1:37 PM

**To:** Elizabeth S Chase <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)>

**Subject:** Re: Fwd: feedback for Nature EE

Please ask Catherine Machalaba (aka for Billy who knows most about the photo) to help with the legend. I don't have the info requested.

J

On Fri, Jan 13, 2017 at 10:57 AM, Elizabeth S Chase <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)> wrote:

Greetings Karl,

Dr. Mazet is traveling and may not see this email until next week. It would be helpful to know your deadline for needing this information and if I am able to ask her sooner than next Tuesday, I definitely will.

Best, Liz

**From:** [REDACTED] **On Behalf Of** Jonna Mazet

**Sent:** Friday, January 13, 2017 9:08 AM

**To:** Elizabeth S Chase <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)>

**Subject:** Fwd: Fwd: feedback for Nature EE



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

From: Karl Gruber <**REDACTED**>  
Date: Fri, Jan 13, 2017 at 5:00 AM  
Subject: Re: Fwd: feedback for Nature EE  
To: Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>

Dear Dr Mazet,

About this picture of the hunter with the Mandrill, I was wondering if you could help me draft a short legend for the photo... maybe giving details of where the mandrill was captured? and how many people it fed or what was done with it? or something along those lines?

Thanks!

Karl

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

From: "Jonna Mazet" <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>  
To: "Karl Gruber" <**REDACTED**>  
Cc: "Elizabeth S Chase" <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)>  
Sent: 9/12/2016 1:11:32 PM  
Subject: Fwd: feedback for Nature EE

Mandrill and hunter;photo by Dr Paul Telfer.

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Thu, 26 Jan 2017 08:43:42 +0100  
**Subject:** Fwd: Updates on HPAI Outbreak in Uganda - Wednesday January 25, 2017  
**To:** Dennis Carroll <dcarroll@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, spaige@usaid.gov, Andrea Long-Wagar <alongwagar@usaid.gov>, Iparish@usaid.gov, Ashna Kibria <akibria@usaid.gov>, Kirsten Gilardi <kvgilardi@ucdavis.edu>, William Karesh <Karesh@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>, **REDACTED**  
**Cc:** "Lisa Kramer (Nairobi/EA/RHH)" <lkramer@usaid.gov>  
[Attachment](#)  
[mime-attachment](#)

FYI. It's H5N8.

Please note that this is not an official government declaration so this information should not be shared broadly including with other countries. I'll let you know when the OIE report is posted.

Lisa: if you see an official press release from Uganda, please share that. Thanks.

Andrew

*Andrew P. Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

Begin forwarded message:

**From:** "Dauphin, Gwenaelle (AGAH)" <**REDACTED**>  
**Date:** January 26, 2017 at 7:55:32 AM GMT+1  
**To:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Subject:** FW: Updates on HPAI Outbreak in Uganda - Wednesday January 25, 2017

---

**From:** Kivaria, Fredrick (FAOUG)  
**Sent:** Wednesday, January 25, 2017 3:42 PM  
**To:**  
**Cc:**

**REDACTED**

**REDACTED**; Lisa Kramer <[lkramer@usaid.gov](mailto:lkramer@usaid.gov)>  
**Subject:** Updates on HPAI Outbreak in Uganda - Wednesday January 25, 2017

Dear Yilma

The following is a brief update on HPAI status as of Wednesday January 25, 2017

**1. Determination of the N component**

- a. Results from the UVRI indicate the culprit virus responsible for the current outbreak in Uganda to be **AH5N8** – see attached envelope for additional information.

**2. Surveillance activities**

- a. Surveillance activities are ongoing in Masaka, and Kalanga – where preliminary reports indicate continued mortalities of both wild-birds and domestic poultry.

**3. Bio-security**

- a. Serious breaching of the imposed quarantine is reported – people continue enjoying the dead birds some say it is “manna” from the heaven.
- b. No serious public education that is taking place

We shall keep you informed as the situation unfolds.

Fredrick

**From:** Julius Lutwama <[REDACTED]>  
**To:** "Kivaria, Fredrick (FAOUG)" <[REDACTED]>, "Kivaria Fredrick (FAOUG)" <[REDACTED]>  
**Subject:** Fw: Influenza AH5N8 confirmed in domestic and wild birds by RT-qPCR  
**Sent:** Wed, 25 Jan 2017 14:17:24 +0000

Hi Fredrick,

Please find the official result notice from the Lab manager.

Regards,

Julius J. Lutwama, PhD.  
SPRO, Head, Department of Arbovirology and Emerging Viral Infections  
Program Coordinator  
UVRI/CDC Influenza Surveillance and Zoonotics Surveillance Programs  
National Influenza Center  
Uganda Virus Research Institute

[REDACTED]

On Wednesday, January 25, 2017 3:13 PM, John Timothy Kayiwa <[REDACTED]> wrote:

Dear Dr Lutwama,

On further testing and analysis by RT-qPCR of the migratory and domestic birds using recently received H5N1 and N8 primers and probes, I report the presence of influenza AH5N8 virus in the RNA samples shipped to UVRI\_NIC by NADDEC.

The samples were also tested by RT-PCR using CDC primers and probes for H1pdm09, H3 and H7 and were negative.

Please let me know when you need more details.

Sincerely,

John T Kayiwa  
Laboratory Manager  
Division of Arboviruses  
Uganda Virus Research Institute  
Nakiwogo Road  
P.O.Box 49  
Entebbe  
[REDACTED]



**From:** "Julius Lutwama" <[REDACTED]>  
**To:** "Kivaria, Fredrick (FAOUG)" <[REDACTED]>, "Kivaria Fredrick (FAOUG)" <[REDACTED]>  
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Sincerely,

John T Kayiwa  
Laboratory Manager  
Division of Arboviruses  
Uganda Virus Research Institute  
Nakiwogo Road  
P.O.Box 49  
Entebbe  
+ [REDACTED]

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**CC:** Pereira, Alisa (GH/HIDN) <apereira@usaid.gov>; Shana Gillette <sgillette@usaid.gov>; David J Wolking <djwolking@ucdavis.edu>; Jonna Mazet <jkmazet@ucdavis.edu>  
**Sent:** 1/27/2017 3:56:28 AM  
**Subject:** Rwanda subcontracts

Hi Liz,

Can you send the AOR checklists for the 2 Rwanda subcontracts? Thanks!

Andrew

--

Andrew Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

*For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>*

**Sent:** Thu, 2 Feb 2017 16:36:34 -0800  
**Subject:** Re: Fw: Next Steps: GHSA Meeting Follow-up (definitions and footnotes)  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Robert Salerno <[REDACTED]>  
**Cc:** Elizabeth Leasure <ealeasure@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Billy Karesh <karesh@ecohealthalliance.org>

We're worried, too, Rob!

Most of us are on planes to China with Dennis tomorrow and won't be back until Wednesday or Thursday.

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Thanks for reaching out,

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I'm not available today as I'm attending the PREDICT World Bank meetings but can be available anytime tomorrow morning.

Thanks much!

Rob

---

Robert H. Salerno, MSc  
Technical Integration Manager  
*Preparedness and Response Project*  
USAID Emerging Pandemic Threats 2 Program (EPT 2)

whatsapp: [+1 401 536 5199](tel:+14015365199)

o: [+1.301.771.7714](tel:+13017717714)

m: [+\[REDACTED\]](tel:+[REDACTED])

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[Web](#) | [Twitter](#) | [Flickr](#) | [Facebook](#) | [LinkedIn](#)

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----- Forwarded by Robert Salerno/DAI on 02/02/2017 09:03 AM -----

**From:** "VonDobschuetz, Sophie (AGAH)" <[REDACTED]>  
**To:** Robert Salerno <[Robert\\_Salerno@dai.com](mailto:Robert_Salerno@dai.com)>, "Susan Scribner" <[Susan\\_Scribner@dai.com](mailto:Susan_Scribner@dai.com)>, "[REDACTED]" <[REDACTED]>, "[REDACTED]" <[REDACTED]>, "[REDACTED]" <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, "[REDACTED]" <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, "[REDACTED]" <[spaige@usaid.gov](mailto:spaige@usaid.gov)>, "[REDACTED]" <[spaige@usaid.gov](mailto:spaige@usaid.gov)>, "[REDACTED]" <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, "[REDACTED]" <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, "[REDACTED]" <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)>, "[REDACTED]" <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)>, "[REDACTED]" <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, "[REDACTED]" <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, "[REDACTED]" <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, "[REDACTED]" <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, "[REDACTED]" <[sgillette@usaid.gov](mailto:sgillette@usaid.gov)>, "[REDACTED]" <[sgillette@usaid.gov](mailto:sgillette@usaid.gov)>, "[REDACTED]" <[dlx9@cdc.gov](mailto:dlx9@cdc.gov)>, "[REDACTED]" <[dlx9@cdc.gov](mailto:dlx9@cdc.gov)>  
**Cc:** "[REDACTED]" <[nkabir@usaid.gov](mailto:nkabir@usaid.gov)>, "[REDACTED]" <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)>, "[REDACTED]" <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)>, "[REDACTED]" <[tdmello@usaid.gov](mailto:tdmello@usaid.gov)>, "[REDACTED]" <[tdmello@usaid.gov](mailto:tdmello@usaid.gov)>  
**Date:** 02/02/2017 07:40 AM  
**Subject:** RE: Next Steps: GHSA Meeting Follow-up (definitions and footnotes)

Dear Rob,

Thanks very much! And sorry for my late reply... Just came back from our Team Leader Meeting in Accra a couple of hours ago.

Dear all,

We had quite productive feedback from our Africa Country Team Leaders that I would like to share with you. I made track changes in attached word document. These apply to both indicators.

Can you please all go through this and see if you agree?

Not sure if someone already worked on the google slides, but I volunteer to update the slides once you provided your feedback on the word doc.

Main question: Are we all happy with the information provided in footnotes now or is there still something that needs to be moved from discussions into footnotes?

Many thanks and kind regards,  
Sophie

From: Robert Salerno [REDACTED]

Sent: 31 January 2017 18:49

To: [REDACTED]; [samaang@who.int](mailto:samaang@who.int); [apereira@usaid.gov](mailto:apereira@usaid.gov); [spaige@usaid.gov](mailto:spaige@usaid.gov); [jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu); [ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu); [ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu); [tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu); [sgillette@usaid.gov](mailto:sgillette@usaid.gov); [dlx9@cdc.gov](mailto:dlx9@cdc.gov)

Cc: [nkabir@usaid.gov](mailto:nkabir@usaid.gov); [rechalar@usaid.gov](mailto:rechalar@usaid.gov); [tdmello@usaid.gov](mailto:tdmello@usaid.gov)

Subject: Next Steps: GHSA Meeting Follow-up (definitions and footnotes)

Importance: High

Dear Colleagues:

As a follow up to last week's GHSA interagency implementers meeting, I am sending along the report out from our Zoonotic Disease Action Package. Richard Greene and the USAID team would like these **definitions completed by COB Friday, February 3rd**. To expedite the process for all of us, I created a google document so we can make real-time edits based on the discussions and feedback from report outs. The link to the google doc can be accessed here:  
[REDACTED]

I'm happy to work w/ Jonna and PREDICT on editing P4.3. **Sophie-** Can you work with your team and PREDICT on P4.1?

Once I receive inputs in the google doc, and we're all on the same page and in agreement with the changes, I can send our team's final recommendations to USAID on Friday afternoon.

If any of you would like to have a quick webchat on Thursday afternoon or Friday morning to finalize our recommendations, please let me know and I can set this up for us.

Thanks much!

Best wishes,  
Rob

---

Robert H. Salerno, MSc  
Technical Integration Manager  
*Preparedness and Response Project*  
*USAID Emerging Pandemic Threats 2 Program (EPT 2)*

REDACTED

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----- Forwarded by Robert Salerno/DAI on 01/31/2017 12:25 PM -----

From: "Tiffany D'mello" <[tdmello@usaid.gov](mailto:tdmello@usaid.gov)>  
To: Kendra Chittenden <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>, "Mahar, Michael (CDC/CGH/DGHP)" <[kul1@cdc.gov](mailto:kul1@cdc.gov)>, [REDACTED], Kaylee Myhre Errecaborde <[myhre044@umn.edu](mailto:myhre044@umn.edu)>, Marilyn Crane <[mcrane@usaid.gov](mailto:mcrane@usaid.gov)>, [REDACTED], Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>  
Cc: Richard Greene <[rgreene@usaid.gov](mailto:rgreene@usaid.gov)>, Amanda Paust <[apaust@usaid.gov](mailto:apaust@usaid.gov)>, Latoya Armstrong <[laarmstrong@usaid.gov](mailto:laarmstrong@usaid.gov)>, Ashna Kibria <[akibria@usaid.gov](mailto:akibria@usaid.gov)>  
Date: 01/30/2017 12:29 PM  
Subject: Action Requested: GHSA Meeting Follow-up (definitions and footnotes)



Dear GHSA Meeting Presenters and Breakout Group Leads,

Thank you again for your participation in last week's GHSA meeting! As a follow-up, please see the attached slide sets that were presented by each of the breakout teams as well as a summary of the discussions that followed these presentations.

**Requested Action:** We ask that you please send us your updated indicator/capacity level definitions and footnotes based on the plenary discussions by Friday, February 3. These will be the basis for additional interagency capacity level definition discussions.

Many thanks again for your contributions and assistance with this. Please let us know if you have any questions.

Best regards,  
Richard and Tiffany

--  
Tiffany D'Mello  
Monitoring and Evaluation Coordinator  
Emerging Threats Division  
Office of Infectious Disease, Bureau for Global Health  
U.S. Agency for International Development


REDACTED

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REDACTED

---

REDACTED

**Sent:** Thu, 2 Feb 2017 16:39:20 -0800  
**Subject:** Re: Fw: Next Steps: GHSA Meeting Follow-up (definitions and footnotes)  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:**   
**Cc:** Elizabeth Leasure <ealeasure@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Billy Karesh <karesh@ecohealthalliance.org>

Just to be clear -- I think Tracey and I are happy to make our edits on your google doc. Can you add her if not on there already (email above).

Thanks again,  
Jonna

On Thu, Feb 2, 2017 at 4:36 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

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REDACTED

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[Web](#) | [Twitter](#) | [Flickr](#) | [Facebook](#) | [LinkedIn](#)

**DAI** Shaping a more livable world.

----- Forwarded by **REDACTED** on 02/02/2017 09:03 AM -----

From: [REDACTED]  
To: [REDACTED], "[REDACTED] [REDACTED]", [apereira@usaid.gov](mailto:apereira@usaid.gov),  
[apereira@usaid.gov](mailto:apereira@usaid.gov), [spaige@usaid.gov](mailto:spaige@usaid.gov) <[spaige@usaid.gov](mailto:spaige@usaid.gov)>, [jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu) <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, [ealessure@ucdavis.edu](mailto:ealessure@ucdavis.edu) <[ealessure@ucdavis.edu](mailto:ealessure@ucdavis.edu)>,  
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Cc: "nkabir@usaid.gov" <nkabir@usaid.gov>, "rechalar@usaid.gov" <rechalar@usaid.gov>, "tdmello@usaid.gov" <tdmello@usaid.gov>

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Cc: [nkabir@usaid.gov](mailto:nkabir@usaid.gov); [rechalar@usaid.gov](mailto:rechalar@usaid.gov); [tdmello@usaid.gov](mailto:tdmello@usaid.gov)

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Technical Integration Manager  
*Preparedness and Response Project*  
*USAID Emerging Pandemic Threats 2 Program (EPT 2)*

**REDACTED**

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----- Forwarded by **REDACTED** on 01/31/2017 12:25 PM -----

From: "Tiffany D'mello" <[tdmello@usaid.gov](mailto:tdmello@usaid.gov)>

UCDUSR0009544

To: Kendra Chittenden <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>, "Mahar, Michael (CDC/CGH/DGHP)" <[kul1@cdc.gov](mailto:kul1@cdc.gov)>, "REDACTED", Kaylee Myhre Errecaborde <[myhre044@umn.edu](mailto:myhre044@umn.edu)>, Marilyn Crane <[mcrane@usaid.gov](mailto:mcrane@usaid.gov)>, "REDACTED", Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>  
Cc: Richard Greene <[rgreene@usaid.gov](mailto:rgreene@usaid.gov)>, Amanda Paust <[apaust@usaid.gov](mailto:apaust@usaid.gov)>, Latoya Armstrong <[laarmstrong@usaid.gov](mailto:laarmstrong@usaid.gov)>, Ashna Kibria <[akibria@usaid.gov](mailto:akibria@usaid.gov)>  
Date: 01/30/2017 12:29 PM  
Subject: Action Requested: GHSA Meeting Follow-up (definitions and footnotes)

---

Dear GHSA Meeting Presenters and Breakout Group Leads,

Thank you again for your participation in last week's GHSA meeting! As a follow-up, please see the attached slide sets that were presented by each of the breakout teams as well as a summary of the discussions that followed these presentations.

**Requested Action:** We ask that you please send us your updated indicator/capacity level definitions and footnotes based on the plenary discussions by Friday, February 3. These will be the basis for additional interagency capacity level definition discussions.

Many thanks again for your contributions and assistance with this. Please let us know if you have any questions.

Best regards,  
Richard and Tiffany

--  
Tiffany D'Mello  
Monitoring and Evaluation Coordinator  
Emerging Threats Division  
Office of Infectious Disease, Bureau for Global Health  
U.S. Agency for International Development

REDACTED

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REDACTED

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REDACTED



**From:** William B. Karesh <karesh@ecohealthalliance.org>  
**To:** David Wolking <djwolking@ucdavis.edu>  
**CC:** Jonna Mazet <jkmazet@ucdavis.edu>; Kevin Olival, PhD" <olival@ecohealthalliance.org>  
**Sent:** 2/22/2017 10:46:22 PM  
**Subject:** Re: Request by 3/3- Information on Zoonotic Disease Illnesses or Outbreaks in Tanzania

Hi David,

It was great meeting Chris and Abel at the DTRA meeting. When they presented the CBEP work it looked a lot like the sampling for PREDICT so I asked them how they are keeping the projects and time separated because we are hoping to hear from CBEP soon about bat work in Western Asia that would include Jordan.

I'm copying Kevin here because he will be PI on the CBEP project and we want to make sure there is no confusion between the two projects since both will involve bats and coronaviruses. Chris and Abel said that there is no overlap with people, labs or databases so that keeps it easy to separate the projects. Right now, we are planning to use a different implementing partner that have their own field staff and labs, but we were hoping to be able to share findings between the projects.

Could Kevin and I give you a call when I get back to the states in early March to get some advice from how you manage the two projects in Tanzania?

Thanks

BK

On Feb 22, 2017, at 9:18 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi Tanzania team,

We didn't touch on this on the call today but since we have now received the official request for information from CDC, it's time to begin planning and preparing an information packet to share, similar to the example I sent along to you all from Uganda.

With teams in the Lake Zone or preparing for departure now I suggest Abel and Chris as the best POCs for helping organize information.

Abel would you be willing to act as lead since you have been engaged in these meetings?

Let's make a plan very soon and identify the best combo of global, regional, and country specific resources that highlight our work and the importance of zoonotic viruses (known and emerging) as well as the risk of spillover from wildlife, etc so these themes are recognized by the planning committee and given fair attention at the workshop.

Please let me know how you would like to organize the preparation and Taylor and I will do whatever we can to assist.

Best,

David

On Wed, Feb 22, 2017 at 07:29 One Health (CDC) <onehealth@cdc.gov> wrote:

Dear partners,

CDC and USAID are collaborating with the government of Tanzania to conduct a One Health Zoonotic Disease Prioritization (OHZDP) workshop. CDC has developed a One Health Zoonotic Disease Prioritization Tool (OHZDPT) which allows a country to bring together multisectoral, One Health representatives to prioritize endemic and emerging zoonoses of greatest national concern using equal input from all represented sectors including human, animal (livestock and wildlife), and environmental health. Having a list of prioritized zoonoses allows a country to focus limited financial and personnel resources to build laboratory capacity, strengthen surveillance in humans and animals, develop joint outbreak response plans, and to create joint prevention and control strategies. Specific details are in the attachment titled, “CDC One Health Zoonotic Disease Prioritization Workshop Overview.” The prioritization of zoonotic diseases is a key component of GHSA and GHSA roadmaps and helps to set priorities for further systems capacity building in line with GHSA and JEE. Tanzania’s National One Health Platform is hosting the workshop.

Beginning about 60 days before the desired workshop date, trained CDC workshop facilitators work with in country partners to develop a list of endemic and emerging zoonoses of concern for prioritization during the workshop and to identify multisectoral partners, both voting members and observers, for participation in the workshop.

The OHZDP tool is semi-quantitative and relies on facilitators, in collaboration with stakeholders, generating a list of zoonoses in advance of workshop discussions. Before the stakeholders come together, developing a list of endemic and emerging zoonotic diseases that each ministry would like to discuss during the prioritization workshop is needed. This list is developed from both published and unpublished information sources. A team approach should be used to develop the list of about 30-40 endemic and emerging zoonotic diseases for prioritization during the workshop. The CDC One Health Office has started with a list of 32 endemic and emerging zoonotic diseases that have been identified either as reportable diseases in Tanzania’s National One Health Strategy Plan, and/or were deemed important in the report of the expert group selected to prioritize zoonotic diseases in Tanzania, October-December 2016. Please find the list of 32 diseases attached.

CDC facilitators coordinate the creation of this list and literature review by working with in-country partners, including CDC and USAID staff. We would like to give partners the opportunity to share information and data on zoonotic diseases in Tanzania that may be beneficial to have during the workshop. We are asking partners to share any available information such as reports, publications, or other materials regarding zoonotic disease illnesses or outbreaks in Tanzania. If you have any additional information you’d like to share on any of the zoonoses on the existing list, or on zoonoses that are not listed, but are present in Tanzania, please let us know by **Friday, March 3rd. Send all information to [onehealth@cdc.gov](mailto:onehealth@cdc.gov) and CDC facilitators Karen Alroy ([nfu1@cdc.gov](mailto:nfu1@cdc.gov)) and Carrie Eggers ([xfy1@cdc.gov](mailto:xfy1@cdc.gov)).**

Thank you for your partnership in preparing for Tanzania’s One Health Zoonotic Disease Prioritization Workshop. If you have any questions, please let us know.

Kerri Simone, MPH *on behalf of*

CDC One Health Office

[cdc.gov/onehealth](https://cdc.gov/onehealth)

**Click on the icon to subscribe to One Health updates from CDC.**

--  
Sent from Gmail Mobile

**From:** Abel Ekiri <abekiri@ucdavis.edu>  
**To:** David John Wolking <djwolking@ucdavis.edu>, Christopher Kilonzo <ckilonzo@ucdavis.edu>, "[REDACTED]  
[REDACTED]" <predict@ucdavis.edu> <predict@ucdavis.edu>,  
[REDACTED]  
**Cc:** Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Taylor Ann Gabourie <tagabourie@ucdavis.edu>, "William Karesh" <karesh@ecohealthalliance.org>  
**Subject:** Re: Request by 3/3- Information on Zoonotic Disease Illnesses or Outbreaks in Tanzania  
**Sent:** Fri, 24 Feb 2017 17:44:34 +0000

Hi David,

Yes will work with the Tanzania team to organise and share relevant materials for the OHDZP workshop, and will reach out to you and Taylor for help as needed.

Thanks,

Abel

---

**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Wednesday, February 22, 2017 6:18:19 PM  
**To:** Abel Ekiri; Christopher Kilonzo; David John Wolking; [REDACTED]; predict@ucdavis.edu;  
[REDACTED]  
**Cc:** Christine Kreuder Johnson; Jonna Mazet; Taylor Ann Gabourie; William Karesh  
**Subject:** Re: Request by 3/3- Information on Zoonotic Disease Illnesses or Outbreaks in Tanzania

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UCDUSR0009549



which allows a country to bring together multisectoral, One Health representatives to prioritize endemic and emerging zoonoses of greatest national concern using equal input from all represented sectors including human, animal (livestock and wildlife), and environmental health. Having a list of prioritized zoonoses allows a country to focus limited financial and personnel resources to build laboratory capacity, strengthen surveillance in humans and animals, develop joint outbreak response plans, and to create joint prevention and control strategies. Specific details are in the attachment titled, “CDC One Health Zoonotic Disease Prioritization Workshop Overview.” The prioritization of zoonotic diseases is a key component of GHSA and GHSA roadmaps and helps to set priorities for further systems capacity building in line with GHSA and JEE. Tanzania’s National One Health Platform is hosting the workshop.

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Thank you for your partnership in preparing for Tanzania’s One Health Zoonotic Disease Prioritization Workshop. If you have any questions, please let us know.

Kerri Simone, MPH *on behalf of*

CDC One Health Office

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Sent from Gmail Mobile

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**To:** David John Wolking <djwolking@ucdavis.edu>, Christopher kilonzo <ckilonzo@ucdavis.edu>, [REDACTED]  
**Cc:** [REDACTED] <predict@ucdavis.edu> <predict@ucdavis.edu>, Taylor Ann Gabourie <tagabourie@ucdavis.edu>  
**Sent:** Fri, 24 Feb 2017 17:45:41 +0000  
**Subject:** [predict] Re: Request by 3/3- Information on Zoonotic Disease Illnesses or Outbreaks in Tanzania

Hi David,

Will respond to Kerri's message shortly.

Abel

**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Friday, February 24, 2017 7:04 AM  
**To:** Christopher kilonzo; Abel Ekiri; [REDACTED]  
**Cc:** [REDACTED]; predict@ucdavis.edu; Taylor Ann Gabourie  
**Subject:** Re: Request by 3/3- Information on Zoonotic Disease Illnesses or Outbreaks in Tanzania

Tanzania team,

At the very least we should respond to Kerri's message indicating we have received it and plan to participate. I'd prefer this to be in-country team led so it doesn't appear PREDICT HQ in the US is taking lead. Please see Agnes' nice message below from OHW/OHCEA as an example. Such a response shows our support and buys time for preparation.

I had recommended Abel take lead on this since he has attended some of these meetings and has been tracking our partner coordination efforts given Zika's busy field calendar, but if he is out of the office or busy, perhaps Zika or Prof could reach out?

Asante,

David

5:01 AM (1 hour ago)

Agnes Yawe [ayawe@ohcea.org](mailto:ayawe@ohcea.org) via [ohceaug.onmicrosoft.com](http://ohceaug.onmicrosoft.com)

to One, Ikramer, Andrew\_Kitua, Sambe\_Duale, Susan\_Scribner, nkabir, Zelalem.Tadesse, yilma.makonnen, Subhash.morzar., Iparish, Andrew, kazwala, zikankubasijali, gmwangoka, djwolking, abekiri, ckilonzo, predict, apereira, Japhet, rmdegela2012, hellen, irwego, pelicank, mcrane

Dear Kerri,

Thank you for sharing this with us. The OHCEA OHW team in Tanzania will get back to you with input.

We shall also be happy to have a representative from our network in Tanzania in observer status during the workshop.

Agnes N.K Yawe

Head Grants and Resource Mobilization/ Partnerships

UCDUSR0009551



REDACTED

On Wed, Feb 22, 2017 at 6:18 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

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Thank you for your partnership in preparing for Tanzania's One Health Zoonotic Disease Prioritization Workshop. If you have any questions, please let us know.

Kerri Simone, MPH *on behalf of*

CDC One Health Office

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Click on the icon to subscribe to One Health updates from CDC.

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Sent from Gmail Mobile



**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Wed, 8 Mar 2017 19:59:31 -0800  
**Subject:** PREDICT Management Team Call (3.13.17)  
**To:** Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, Tracey Goldstein <tgoldstein@ucdavis.edu>  
**Cc:** Amanda Fuchs <fuchs@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, Molly Turner <turner@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>  
[PREDICT West Africa - Sierra Leone-Guinea-Liberia-GHSA scoping document FINAL.docx](#)  
[PREDICT-2 New Subaward Status Tracker updated 3-8-17 SMT.xlsx](#)  
[PREDICT MT Agenda \(3.13.17\) final.docx](#)

Hello,

Attached and below for quick reference is the PREDICT management team agenda, call info and supporting docs for this Monday March 13, 2017 (10-10:30AM PDT/1-1:30PM EDT). Please note that this is a 30 minute call. I'll send calendar invites next.

Best,

David

## **PREDICT Management Team Agenda**

**Monday, March 13, 2017**

**10:00-10:30 PDT/1:00-1:30pm EDT**

**REDACTED**

International Dial-in number: **REDACTED** (toll charges apply)

### **Standing items**

### **USAID Updates**

#### **1. Administrative items**

- a. Pending subawards and subcontracts (attachment)
- b. Financial reporting requirements for Mission funding (Jordan, Indonesia)
- c. OAA guidance on ADS 302
- d. Semi-annual and GHSA report guidance
- e. Context for ad hoc information requests
- f. PMAC attendee guidance
- g. Mainz regional meeting plans, agenda, and attendees
- h. US Ambassador visit in Ghana

#### **2. GHSA meeting read-out**

#### **3. Mission communications round-up and data sharing with Missions discussion**

#### **4. Uganda zoonotic disease prioritization workshop readout**

5. **West Africa trip overview** (Tracey - attachment)
6. **Outbreak updates** (AI preparedness/response round up and NiV in Bangladesh)
7. **EPT partner collaboration/coordination updates and external panel report** (Billy)

**PREDICT Management Team Agenda  
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**10:00-10:30 PDT/1:00-1:30pm EDT**

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- 7. EPT partner collaboration/coordination updates and external panel report** (Billy)

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## **PREDICT in Ebola-affected West African countries (Sierra Leone, Guinea, and Liberia)**

PREDICT, a project of USAID's Emerging Pandemic Threats (EPT) program, was initiated in 2009 and is working to strengthen global capacity for detection and discovery of zoonotic viruses with epidemic and pandemic potential, including viruses related to the Ebola, influenza, and Zika viruses that have been recent causes of devastating disease and necessary impetuses of dramatic and resource-intensive responses. The project is actively and diligently implementing Global Health Security Agenda (GHSA) activities in target countries aimed at developing and operationalizing strategies to improve disease surveillance and detection in the short term and reduce zoonotic pathogen spillover, amplification, and spread in the long term, through improved public health policies and risk mitigation efforts. In every country of engagement, we work hand-in-hand with governmental and non-governmental stakeholders to develop and implement activities that are designed to strengthen surveillance and laboratory capabilities and ensure lasting positive effects from our engagements.

Nowhere are the overarching goals of PREDICT and GHSA more relevant than in Sierra Leone, Guinea, and Liberia. The devastation left by an unprecedented Ebola virus outbreak between 2013 and 2016 revealed the urgent need for increased animal and public health sector capacity strengthening at all levels. Put into historical context, this single outbreak where over 28,000 cases and 11,323 deaths occurred was more than 60 times larger than any previous Ebola outbreak, had cases spread to 7 additional countries for the first time, and stretched in-country and international emergency response efforts to the utmost limits of capacity.

Due to the impact on these three countries, PREDICT is engaged in a focused effort to better address the needs posed by the threat of Ebola by understanding the virus's animal origins, while strengthening capacity to build and reinforce emerging disease surveillance and detection systems. PREDICT is specifically working to improve our understanding of the wildlife reservoir, spillover hosts, and origins of Ebola virus; ascertain the potential of virus-spillover during the outbreak into other non-typical hosts such as livestock or companion animals; gain a greater understanding of high-risk human behavioral activities, and improve disease surveillance and laboratory capacities through workforce development in line with GHSA priorities.

Although 2016 saw the halt of human-to-human transmission of Ebola virus, the virus may have become endemic, and potentially may be circulating among animal hosts. Without determining which animals may serve as reservoirs of infection, prevention programs to reduce transmission from animals to people will have limited impact, and it is likely that future spillover of ebolaviruses from animals into humans will continue to occur. As we have seen over the years in Central and Eastern Africa where filovirus outbreaks have repeatedly occurred, effective control of these rare "spillover" events is possible and, when the right technical capacities are in place, can even be limited to a small number of human cases. The challenge in controlling future Ebola virus outbreaks in West Africa, is dependent on how widely distributed the virus may be across the region and which animal populations are now involved as hosts.

In Central Africa, a number of different bat species have been proposed as reservoir hosts for the virus. Similarly, in West Africa, the current epidemic is thought to have been triggered by a spillover event from an infected bat. In addition, given the wide exposure other animal populations, both wild and domestic, may have had across West Africa, largely through direct or indirect contact with Ebola-infected humans, there is the risk that the host range of the virus has expanded to now include domestic animals, such as dogs and cats, goats, and pigs, as well as other wildlife.





Despite several high-quality studies in specific geographic areas over the last 2 decades, a comprehensive, long-term, simultaneous, multi-country coordinated investigation into the origins of Ebola, including a wide taxonomic range of potential virus hosts, has never been conducted. The purpose of PREDICT activities in this area is to determine how widely distributed the virus may be among animal populations, and how this host distribution will affect the risks of future outbreaks. This comprehensive, multi-year effort in Liberia, Sierra Leone, and Guinea is designed to identify a range of possible animal hosts for all filoviruses and other priority pathogens that could serve as a source of human infections, as well as the behaviors and conditions associated with increased likelihood of another outbreak<sup>1</sup> – information that is key to reducing the risk of future outbreaks.

### **PREDICT'S FOCUSED APPROACH IN THE EBOLA OUTBREAK AFFECTED COUNTRIES**

#### **ZOONOTIC DISEASE SURVEILLANCE AND PREPAREDNESS:**

PREDICT will be conducting biological sampling **of animals** in Sierra Leone, Guinea, and Liberia. Unlike other PREDICT engagement countries, no collection of biological specimens from humans will be conducted. The project has been focusing on four domestic species (dogs, cats, domestic pigs, goats) and three broad wildlife taxa (rodents, non-human primates, and bats) in the region and with the goal of sampling approximately 54,000 animals over an approximately two-year period once sample collection has been initiated, a scale that is unprecedented. Analyses of available data on all ebolaviruses and sampling and testing conducted by PREDICT-2 throughout the world are being used to optimize sampling design, including targeting of species, geographic focus, and temporal range. In each country, PREDICT Consortium members in collaboration with local in country partners have established and trained multiple field-investigation teams to conduct animal sampling following established PREDICT protocols and standard operating procedures including: biosafety, animal sampling, specimen transport and cold chain, and basic laboratory practices.

To identify behavioral risks and mitigation and intervention points, PREDICT uses a multidisciplinary approach to identify groups of populations at highest risk of exposure to emerging pathogens. Our teams assess community perceptions of animal exposure and disease risk and evaluate widely held assumptions of community practices (e.g. high risks from bushmeat hunting). In the three most Ebola-affected countries, PREDICT will use behavioral surveys and/or detailed interviews with persons in the region to identify potential contact with wildlife or other animal sources of the virus and document individual history of Ebola infection in people owning animals targeted for sampling. These methods will lead to a more comprehensive understanding of behaviors that could lead to Ebola virus spillover and potential for transmission to animals, essential to the design and evaluation of mitigation interventions, and to inform policy decisions by identifying barriers to change and acceptable alternatives.

Using data generated in this project, PREDICT will be able to use state-of-the-art modeling and analytic approaches to help further guide Ebola virus surveillance and help these three countries develop disease control and prevention strategies. Using these tools, PREDICT will evaluate epidemiologic patterns in ebolavirus distribution and produce fine-scale hotspot maps of potential Ebola virus spill-over, combining in-country data on land use, socioeconomic, and agricultural changes with data from our human behavioral risk assessment teams to further refine and identify where Ebola virus spill-over might be most likely to occur, where it might amplify, and who is at most risk.

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<sup>1</sup>As concluded at the Ebola Risk Mapping Symposium hosted by USAID on May 11, 2015, that included representatives from the U.S. Centers for Disease Control and Prevention, the Center for International Forestry Research, EcoHealth Alliance, the Global Environment Facility, the University of California-Davis, the U.S. Agency for International Development, the U.S. Department of Defense, the U.S. Fish and Wildlife Service, and the US Forest Service.







Our surveillance activities are designed to focus on three critical factors that have potential influence on ebolavirus transmission dynamics in the region.

1. Geographic distribution. The unprecedented geographic spread of the virus among human populations across multiple countries in West Africa raises the prospect that the Ebola virus could have “spilled back” from people into previously unaffected animal populations — wildlife, companion animals, and livestock—resulting in a broader geographic distribution of the virus. As a result, PREDICT efforts to monitor Ebola virus risk will be more expansive and cover the entire three country region to more fully understand the extent of the potential risk.

2. Distribution among host species. In other parts of the world, some filoviruses are known to naturally infect wildlife (bats, non-human primates) and domestic pigs (specifically, *Reston ebolavirus*). In order to more fully understand the range of animals possibly infected by ebolaviruses in West Africa, it will be necessary to collect samples from a variety of wildlife and domestic animal populations across the region during the project. Importantly, the scale of the most recent epidemic has potentially led to higher rates of exposure to the virus by novel animal species as a result of poor sanitary conditions and open defecation or vomiting by infected individuals. In theory, this widespread exposure could have resulted in new host/reservoir dynamics which may have a substantial impact on future outbreaks and risk mitigation strategies. In light of this risk, PREDICT is actively engaged in each of the three countries to conduct biological surveillance among potential wildlife reservoirs and domesticated animals such as pigs, goats, dogs and cats.

3. Seasonality. Increasing evidence shows that many zoonotic viruses, such as avian influenza, Marburg virus, and MERS coronavirus appear to have increased transmission during specific times of the year when there is heightened shedding in animal hosts, optimal environmental conditions, and/or human behaviors facilitating contact. As a result, the viruses cannot always be detected continuously throughout the year. To date, “one-off” efforts to detect active shedding of Ebola virus in animals have not been successful, suggesting that this virus may also have a seasonal pattern. To address this gap in key knowledge, PREDICT is engaged in longitudinal surveillance activities over multiple years to collect samples from all targeted animals repeatedly at sites. During the first year of surveillance, efforts are focused on detecting virus shedding and sampling in subsequent years will serve to validate seasonal patterns and identify risk factors associated with animal-human contact at these particular times of year. Obtaining this information quickly is critical for targeting surveillance for the following year and developing more specific prevention and control measures needed to prevent the future spillover of the virus from animals. This prevention approach has helped to successfully mitigate some avian influenza viruses and other emerging diseases.

#### LABORATORY SYSTEMS STRENGTHENING:

In the region, PREDICT will provide the materials (including optimized assays), SOPs, and protocols for training in laboratory safety and best practices for sample handling and transport and will continue to conduct basic and follow-up trainings for lab staff in methods for viral detection (where feasible, focusing on Ebola and other filoviruses), management of data, tracking of laboratory sample and results data, interpretation of data, and analysis of results. PREDICT's testing success in other countries relies on the use of broadly reactive consensus (genus/family level) RT-PCR supplemented with high throughput sequencing. These powerful tools produce specific, high resolution data allowing for the rapid detection of known and new potential pathogens. In the three most Ebola-affected countries a similar approach will be conducted with a specific focus on filovirus and other priority pathogen detection. Thus, specimens will be collected from the approximately 54,000 animals for testing by both conventional PCR to detect all filoviruses and other priority pathogens, as well as highly specific real-time (qRT-PCR) to detect *Zaire ebolavirus*, to provide evidence of active infections by PCR-based testing and prior infections by serological tests under development.





#### **BIOSAFETY AND BIOSECURITY:**

Biosafety is paramount to successful implementation of One Health disease surveillance activities especially in this 3-country region. Core to PREDICT's approach to zoonotic disease surveillance is an emphasis on strengthening local capacity for safe sample collection, handling, transport, and storage of potentially hazardous and infectious materials across the full-spectrum of surveillance activities. PREDICT has developed protocols and training materials emphasizing biosafety. In addition to providing these training materials to PREDICT in-country staff, partners, and ministry and university stakeholders for use, all individuals participating in sampling or lab activities, irrespective of employer, are required to meet our training and preventive vaccine standards, including district-level medical, veterinary, and wildlife professionals.

#### **REPORTING AND INFORMATION MANAGEMENT:**

Central to the effective operationalization of a One Health Platform is the sharing of information and coordination of reporting across sectors via multi-sectoral technical working groups. PREDICT is working with ministry partners in the region to enhance information and reporting flows across human and animal health sectors and encourage dialogue concerning potential zoonotic disease threats. Given the heightened sensitivities of Ebola-related data in the 3-country region, PREDICT will work closely with host governments and partners to interpret and share information through systems designed to protect and ensure data quality and accuracy. Test results are interpreted in light of all available scientific literature by PREDICT virologists. After interpretation, results are provided to host governments for examination, to inform policy, and for approval for public release through the PREDICT data site powered by HealthMap. This open access platform allows users to visualize PREDICT data along with disease events worldwide (<http://data.predict.global>). It is important to note that no data will be publically released by PREDICT before receiving host government approval.

#### **WORKFORCE DEVELOPMENT AND CAPACITY STRENGTHENING:**

Preparing for emerging disease threats, like Ebola, requires investments in infrastructure, institutions, and human resources across a broad array of health and social systems to operationalize One Health approaches and platforms. In collaboration with country governments and EPT partners, PREDICT is committed to assist with developing the core skills and capabilities required by tomorrow's One Health workforce. In each country, core teams with local partners are being established and obtaining training in biosafety, field surveillance, basic laboratory safety, the social sciences, and behavioral risk investigations. To date over fifty (50) in-country personnel have been trained and are actively working on PREDICT activities in the three-country region.

PREDICT, at its core, is built upon One Health partnerships. Cross-disciplinary collaborations are critical for gaining a fuller understanding of the integral links among human, animal, and environmental health that can provide opportunities for prevention or early detection and control of disease threats. Using existing partnerships with experts in disease surveillance, modeling, and management of livestock and wildlife populations, the project partners will implement activities to attempt to identify the animal host(s) of ebolaviruses and risk factors associated with viral spillover from these animals to people by tapping into existing mechanisms and relationships that have been the backbone of USAID's Emerging Pandemic Threats (EPT) portfolio. NIH, NAMRU, CDC Viral Special Pathogens Branch, and DTRA have signaled interest in aligning key parts of their resources to work with this effort. Further, discussions will be held on an ongoing basis with international organizations, such as WHO, donor organizations, host-governments, and non-governmental organizations to ensure complementarity with other on-going efforts and avoid duplication. By working across sectors and including a diverse range of stakeholders and expertise, PREDICT helps operationalize efforts that promote public health, effective natural resource management, and development.





**Sent:** Mon, 13 Mar 2017 09:26:05 -0700  
**Subject:** Re: PREDICT Management Team Call (3.13.17)  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Christine Kreuder Johnson <ckjohnson@ucdavis.edu>  
**Cc:** David John Wolking <djwolking@ucdavis.edu>

Please send the activities tracker to the list for today.

Thanks,  
J

On Sun, Mar 12, 2017 at 10:26 PM, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)> wrote:

Hi - I see this call is very short so for next time, it'd be great to attach the activities tracker to agenda and see if SMT has any questions or suggestions for revised formatting.  
I'll try to remind too, thx  
/ckj

---

From: David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)>  
Sent: Wednesday, March 8, 2017 8:00 PM  
Subject: PREDICT Management Team Call (3.13.17)  
To: Cassandra Louis Duthil <[clouisduthil@usaid.gov](mailto:clouisduthil@usaid.gov)>, Clements, Andrew (GH/HIDN) <[aclements@usaid.gov](mailto:aclements@usaid.gov)>, William Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Lindsay Parish <[lparish@usaid.gov](mailto:lparish@usaid.gov)>, Leilani Francisco <[francisco@ecohealthalliance.org](mailto:francisco@ecohealthalliance.org)>, Alisa Pereira Emerging Threats Division <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, Eddy Rubin <[erubin@metabiota.com](mailto:erubin@metabiota.com)>, Shana Gillette <[sgillette@usaid.gov](mailto:sgillette@usaid.gov)>, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>  
Cc: Alison Andre <[andre@ecohealthalliance.org](mailto:andre@ecohealthalliance.org)>, Catherine Machalaba <[machalaba@ecohealthalliance.org](mailto:machalaba@ecohealthalliance.org)>, PREDICTMGT <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>, Amanda Fuchs <[fuchs@ecohealthalliance.org](mailto:fuchs@ecohealthalliance.org)>, Molly Turner <[turner@ecohealthalliance.org](mailto:turner@ecohealthalliance.org)>, Ava Sullivan <[sullivan@ecohealthalliance.org](mailto:sullivan@ecohealthalliance.org)>, Evelyn Luciano <[luciano@ecohealthalliance.org](mailto:luciano@ecohealthalliance.org)>

Hello,

Attached and below for quick reference is the PREDICT management team agenda, call info and supporting docs for this Monday March 13, 2017 (10-10:30AM PDT/1-1:30PM EDT). Please note that this is a 30 minute call. I'll send calendar invites next.

Best,

David

### PREDICTManagement Team Agenda

Monday, March 13, 2017

10:00-10:30 PDT/1:00-1:30pm EDT

**REDACTED**

International Dial-in number: **REDACTED** (toll charges apply)

Standing items

UCDUSR0009562

1. **Administrative items**
  - a. Pending subawards and subcontracts (attachment)
  - b. Financial reporting requirements for Mission funding (Jordan, Indonesia)
  - c. OAA guidance on ADS 302
  - d. Semi-annual and GHSA report guidance
  - e. Context for ad hoc information requests
  - f. PMAC attendee guidance
  - g. Mainz regional meeting plans, agenda, and attendees
  - h. US Ambassador visit in Ghana
2. **GHSA meeting read-out**
3. **Mission communications round-up and data sharing with Missions discussion**
4. **Uganda zoonotic disease prioritization workshop readout**
5. **West Africa trip overview**(Tracey - attachment)
6. **Outbreak updates**(AI preparedness/response round up and NiV in Bangladesh)
7. **EPT partner collaboration/coordination updates and external panel report (Billy)**

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** predict@ucdavis.edu <predict@ucdavis.edu>  
**CC:** PREDICTMGT <predictmgt@usaid.gov>; Jonna Mazet <jkmazet@ucdavis.edu>; Chittenden, Kendra (Jakarta/Health) <kchittenden@usaid.gov>  
**Sent:** 3/20/2017 11:47:45 AM  
**Subject:** Fwd: Predict Ebola study on animals

Hi,

See below for comments from CDC following the Predict visit.

Please let me know if you have any questions or if there is something that needs to be discussed or decided.

Thanks!

Andrew

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

**From:** **Christina Chappell** <cchappell@usaid.gov>  
**Date:** Thu, Mar 16, 2017 at 4:38 PM  
**Subject:** Fwd: Predict Ebola study on animals  
**To:** Kendra Chittenden <kchittenden@usaid.gov>, Andrew Clements <aclements@usaid.gov>  
**Cc:** Jennifer Mbabazi <jmbabazi@usaid.gov>, Tamar Bah <tbah@usaid.gov>

Andrew, Kendra

Here are the technical concerns/recommendations which have been raised by our CDC in-country counterparts following the PREDICT team's visit, which merit consideration and response from the PREDICT experts.

As we also discussed, we need to encourage the appropriate outreach/applications/planning to secure means for the potential/eventual need to export the samples (active or inactive, wildlife or domestic animals).

Thank you

Christina

Christina Chappell, MPH

USAID/Health Office

USAID

US Embassy Guinea

PO Box 603, Transversale 2

Administrative Center of Koloma

Conakry, Commune of Ratome

Republic of Guinea

Tel.: (224) 657-104-098

Note: I can also be reached at (+1) 724 698 8751 while I am working from the United States

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

From: **Martel, Lise (CDC/CGH/DGHP)** <[diz0@cdc.gov](mailto:diz0@cdc.gov)>

Date: Fri, Mar 10, 2017 at 1:36 PM

Subject: Predict Ebola study on animals

To: "Dickerson, Barbara J" <[DickersonBJ@state.gov](mailto:DickersonBJ@state.gov)>, Jennifer Mbabazi <[jmbabazi@usaid.gov](mailto:jmbabazi@usaid.gov)>, "Chappell, Christina (CDC usaid.gov)" <[cchappell@usaid.gov](mailto:cchappell@usaid.gov)>, Tamar Bah <[tbah@usaid.gov](mailto:tbah@usaid.gov)>

Cc: "Bile, Ebi (CDC/CGH/DGHP) (CTR)" <[efb6@cdc.gov](mailto:efb6@cdc.gov)>, "Diab, Heba I" <[DiabHI@state.gov](mailto:DiabHI@state.gov)>

Dear all,

Thank you for organizing the session with Predict. It was very informative and interesting. Ebola is a very sensitive subject, so I have a few suggestion that might prevent issues to arise with the MOH in regards to this study and also help the success of the study.

I was under the impression, after the presentation by Predict, that they had already placed a freezer and a generator at Dr. Magassouba's lab for the storage of specimen. This is not the case.

1. Specimen that have been received for this animal study have been stored in a -20 freezer that is different from the -80 freezer that contains human blood Ebola samples. This is good news from a safety perspective. The -80 freezer with Ebola specimen is locked and should not be opened as it contains positive samples that have not been neutralized. Predict might want to quickly acquire a -80 freezer (recommended temperature for blood samples for better conservation) to ensure proper storage of their samples.

2. Dr. Magassouba did not seem to have total clarity of what Predict would provide (freezer/generator) or the specifics of the study. I would recommend meeting with him, go over supplies and study, and do the same with Dr. Sakoba and Prof. Lamine.

Here are some additional recommendations

1. Predict should have a Memorandum of Understanding (MOU) signed by the MOH and Ministry of Livestock that explains the method used to ensure proper handling, neutralization, storage, and shipping of specimen. This was requested by the GoG for the human samples and is a hot topic of conversation right now



because of direct safety concerns expressed by both the President and the Minister of Health.

2. The principal investigator on the ground should also be able to demonstrate that proper measures are being taken to ensure the prevention of human infection from potentially infected animal blood. In addition to PPE, proper training, and Trizol being used at the collection sites, it might be advisable to consider additional measures. No vaccine is available at this time. Possible measures:

- a. daily temperature monitoring of all collectors and their immediate family
  - b. use of a sheet that records who collected which sample and link lab results to this line list of collectors after confirmation of PCR test in California. This should be regularly shared with MOH and time between collection and testing minimized as much as possible for rapid confirmation.
  - c. Field incidents (needle pricks, bites from bats, spill of test tubes or fluids should be well documented and shared
3. More clarification should be given as to why one aliquot is kept in Guinea. For what research will the samples be used? By whom? These should be captured in a research protocol shared with both MOH and Ministry of Livestock
4. The chain of custody, etc should be documented in an SOP.
5. All of these items should be discussed openly with the MOH and the Ministry of Livestock

Also, the person from the Department of State who is responsible for the MOU for the human samples and organizing the irradiation of samples to the US will be in town this weekend until Wednesday. Her name is Heba Diab. Feel free to reach out to her. She might have helpful tips for you.

I hope this helps. If you have specific lab related questions, do not hesitate to reach out to Ebi (CDC) or Heba (DoS).

Regards,  
Lise

Lise D. Martel, PhD, M.Ed, MPH  
CDC-Guinea Country Director  
American Embassy  
Conakry, Guinea  
Tel : 621-56-40-80  
Email : [lmartel@cdc.gov](mailto:lmartel@cdc.gov)

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Andrew Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

**Sent:** Thu, 23 Mar 2017 10:42:40 -0700  
**Subject:** Re: Abstract for WDA  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** "William B. Karesh" <karesh@ecohealthalliance.org>  
**Cc:** Tracey Goldstein <tgoldstein@ucdavis.edu>, "sja2127@cumc.columbia.edu" <sja2127@cumc.columbia.edu>, Chris Johnson <ckjohnson@ucdavis.edu>, Denise J Greig <[REDACTED]>, "Wells, Heather L." <hlw2124@cumc.columbia.edu>, "Dr. Damien Joly" <djoly@metabiota.com>, Nathan Wolfe <nwolfe@metabiota.com>, Peter Daszak <daszak@ecohealthalliance.org>, Ian Lipkin <wil2001@columbia.edu>, "Dr. Steve Morse" <ssm20@columbia.edu>, "xc2273@columbia.edu" <xc2273@columbia.edu>, "[REDACTED]" <[REDACTED]>, "sck2165@cumc.columbia.edu" <sck2165@cumc.columbia.edu>

Beautiful!  
Jonna

On Wed, Mar 22, 2017 at 11:32 AM, William B. Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)> wrote:

Very nice !!  
BK

**William B. Karesh, D.V.M**  
*Executive Vice President for Health and Policy*

EcoHealth Alliance  
460 West 34th Street - 17th Floor  
New York, NY 10001 USA

[+1.212.380.4463](tel:+12123804463) (direct)  
[+1.212.380.4465](tel:+12123804465) (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Mar 20, 2017, at 5:27 PM, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)> wrote:

Dear All,

We were hoping to submit the abstract from our global coronavirus paper to present at the Wildlife Disease Association meeting this summer - please see the abstract below. As you are all co-authors on the paper I wanted to make sure you were happy for me to represent us on this work at the meeting - abstract is due April 1.

Please let me know if you questions, additions or concerns.

Best, Tracey

# Global patterns in coronavirus diversity

## Abstract:

Since the emergence of SARS-CoV and MERS-CoV it has become increasingly clear that bats are important reservoirs of CoVs. Despite this, only 16% of all CoV sequences in Genbank are from bats. The remaining 84% constitute sequences of known pathogens of public health or agricultural significance, indicating that current research effort is heavily biased towards describing known diseases rather than the 'pre-emergent' diversity in bats. Our study addresses this critical gap, and focuses on resource poor countries where the risk of zoonotic emergence is believed to be highest. We surveyed the diversity of CoVs in multiple host taxa from 20 countries to explore the factors driving viral diversity at a global scale. We identified sequences representing 100 discrete phylogenetic clusters, 91 of which were found in bats, and used ecological and epidemiologic analyses to show that patterns of CoV diversity correlate with those of bat diversity. This cements bats as the major evolutionary reservoirs and ecological drivers of CoV diversity. Co-phylogenetic reconciliation analysis was also used to show that host switching has contributed to CoV evolution, and a preliminary analysis suggests that regional variation exists in the dynamics of this process. Overall our study represents a model for exploring global viral diversity and advances our fundamental understanding of CoV biodiversity and the potential risk factors associated with zoonotic emergence.

--

Tracey Goldstein, PhD  
One Health Institute  
School of Veterinary Medicine  
University of California  
Davis, CA 95616  
Phone: (530) 752-0412  
Fax: (530) 752-3318  
E-mail: [tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)

**From:** "William B. Karesh" <karesh@ecohealthalliance.org>  
**To:** "sja2127@cumc.columbia.edu" <sja2127@cumc.columbia.edu>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Chris Johnson <ckjohnson@ucdavis.edu>, "Denise J Greig" <[REDACTED]>, "Wells, Heather L." <hlw2124@cumc.columbia.edu>, "Dr. Damien Joly" <djoly@metabiota.com>, "Nathan Wolfe" <nwolfe@metabiota.com>, Peter Daszak <daszak@ecohealthalliance.org>, Ian Lipkin <wil2001@columbia.edu>, "Dr. Steve Morse" <ssm20@columbia.edu>, "xc2273@columbia.edu" <xc2273@columbia.edu>, "[REDACTED]", "Kramer, Sarah C." <sck2165@cumc.columbia.edu>  
**Subject:** Re: Abstract for WDA  
**Sent:** Sun, 26 Mar 2017 20:23:18 +0000

Nice idea.

Sent from my iPhone

On Mar 26, 2017, at 3:14 PM, Anthony, Simon J. <[sja2127@cumc.columbia.edu](mailto:sja2127@cumc.columbia.edu)> wrote:

Dear all,  
I would also like to submit the same abstract to the bat ID meeting ([REDACTED]), if everyone is ok with that?

Cheers!  
S.

---

Simon J Anthony, D.Phil  
Assistant Professor, Department of Epidemiology  
Center for Infection and Immunity, Columbia University

722 West 168th Street, 17th Floor  
NY, NY, 10032

Email: [sja2127@cumc.columbia.edu](mailto:sja2127@cumc.columbia.edu)  
Mobile: [REDACTED]  
Office: 212-342-0558

On Mar 23, 2017, at 1:42 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

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Jonna

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**William B. Karesh, D.V.M**  
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UCDUSR0009569



President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Mar 20, 2017, at 5:27 PM, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)> wrote:

Dear All,

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Please let me know if you questions, additions or concerns.

Best, Tracey

## **Global patterns in coronavirus diversity**

### **Abstract:**

Since the emergence of SARS-CoV and MERS-CoV it has become increasingly clear that bats are important reservoirs of CoVs. Despite this, only 16% of all CoV sequences in Genbank are from bats. The remaining 84% constitute sequences of known pathogens of public health or agricultural significance, indicating that current research effort is heavily biased towards describing known diseases rather than the 'pre-emergent' diversity in bats. Our study addresses this critical gap, and focuses on resource poor countries where the risk of zoonotic emergence is believed to be highest. We surveyed the diversity of CoVs in multiple host taxa from 20 countries to explore the factors driving viral diversity at a global scale. We identified sequences representing 100 discrete phylogenetic clusters, 91 of which were found in bats, and used ecological and epidemiologic analyses to show that patterns of CoV diversity correlate with those of bat diversity. This cements bats as

the major evolutionary reservoirs and ecological drivers of CoV diversity. Co-phylogenetic reconciliation analysis was also used to show that host switching has contributed to CoV evolution, and a preliminary analysis suggests that regional variation exists in the dynamics of this process. Overall our study represents a model for exploring global viral diversity and advances our fundamental understanding of CoV biodiversity and the potential risk factors associated with zoonotic emergence.

--

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One Health Institute  
School of Veterinary Medicine  
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Davis, CA 95616  
Phone: (530) 752-0412  
Fax: (530) 752-3318  
E-mail: [tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)

**Sent:** Tue, 28 Mar 2017 09:50:50 -0700  
**Subject:** Fwd: Predict Ebola study on animals  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Eddy Rubin <erubin@metabiota.com>, Karen Saylor <ksaylor@metabiota.com>  
**Cc:** Tracey Goldstein <tgoldstein@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>

As David mentioned, we had hoped to have a discussion with Andrew on this MT. Unfortunately, he wants a written response to CDC by tomorrow, so I will need you to address these issues in writing to me today. Apparently the traveling team had offered to do this briefing when they were there, but Frantz wanted to keep it as scheduled the Monday after they left. Unfortunately, this is the result.

Please respond to me with your best answers to clear up these issues today, to give us a chance to review and adjust if necessary by tomorrow,

Jonna

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

From: **Andrew Clements** <[aclements@usaid.gov](mailto:aclements@usaid.gov)>

Date: Tue, Mar 28, 2017 at 2:08 AM

Subject: Re: Predict Ebola study on animals

To: "[predict@ucdavis.edu](mailto:predict@ucdavis.edu)" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>

Cc: PREDICTMGT <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, "Chittenden, Kendra (Jakarta/Health)" <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>

Hi Jonna,

Apologies if I missed a reply to the email below.

Can you let us know by COB your time on Wednesday your responses to the suggestions. We'd like to be able to signal back to the mission that the suggestions were reviewed and indicate if there are any steps Predict will take based on them. It's okay to say if suggestions go beyond the scope of Predict or have already been addressed (or are in process) by Predict or others.

Thanks!

Andrew

*Andrew P. Clements, Ph.D.*

*Senior Scientific Adviser*

*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*

*U.S. Agency for International Development*

*Mobile phone: [1-571-345-4253](tel:1-571-345-4253)*

*Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Mar 20, 2017, at 7:47 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi,

See below for comments from CDC following the Predict visit.

Please let me know if you have any questions or if there is something that needs to be discussed or decided.

Thanks!

Andrew

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

From: **Christina Chappell** <[cchappell@usaid.gov](mailto:cchappell@usaid.gov)>

Date: Thu, Mar 16, 2017 at 4:38 PM

Subject: Fwd: Predict Ebola study on animals



To: Kendra Chittenden <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
Cc: Jennifer Mbabazi <[jmbabazi@usaid.gov](mailto:jmbabazi@usaid.gov)>, Tamar Bah <[tbah@usaid.gov](mailto:tbah@usaid.gov)>

Andrew, Kendra

Here are the technical concerns/recommendations which have been raised by our CDC in-country counterparts following the PREDICT team's visit, which merit consideration and response from the PREDICT experts.

As we also discussed, we need to encourage the appropriate outreach/applications/planning to secure means for the potential/eventual need to export the samples (active or inactive, wildlife or domestic animals).

Thank you  
Christina

Christina Chappell, MPH

USAID/Health Office

USAID



REDACTED

*Note: I can also be reached at [\(+1\) 724 698 8751](tel:+17246988751) while I am working from the United States*

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

From: **Martel, Lise (CDC/CGH/DGHP)** <[diz0@cdc.gov](mailto:diz0@cdc.gov)>

Date: Fri, Mar 10, 2017 at 1:36 PM

Subject: Predict Ebola study on animals

To: "Dickerson, Barbara J" <[DickersonBJ@state.gov](mailto:DickersonBJ@state.gov)>, Jennifer Mbabazi <[jmbabazi@usaid.gov](mailto:jmbabazi@usaid.gov)>, "Chappell, Christina (CDC [usaid.gov](mailto:usaid.gov))" <[cchappell@usaid.gov](mailto:cchappell@usaid.gov)>, Tamar Bah <[tbah@usaid.gov](mailto:tbah@usaid.gov)>

Cc: "Bile, Ebi (CDC/CGH/DGHP) (CTR)" <[efb6@cdc.gov](mailto:efb6@cdc.gov)>, "Diab, Heba I" <[DiabHI@state.gov](mailto:DiabHI@state.gov)>

Dear all,

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Regards,  
Lise

Lise D. Martel, PhD, M.Ed, MPH  
CDC-Guinea Country Director  
American Embassy

**REDACTED**

Email : [lmartel@cdc.gov](mailto:lmartel@cdc.gov)

--

Andrew Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development

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Mobile phone: [1-571-345-4253](tel:1-571-345-4253)  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

<winmail.dat>

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>  
**Cc:** Tracey Goldstein <tgoldstein@ucdavis.edu>, "sja2127@cumc.columbia.edu" <sja2127@cumc.columbia.edu>, Chris Johnson <ckjohnson@ucdavis.edu>, "Denise J Greig" <[REDACTED]>, "Wells, Heather L." <hlw2124@cumc.columbia.edu>, "Dr. Damien Joly" <djoly@metabiota.com>, "Nathan Wolfe" <nwolfe@metabiota.com>, Ian Lipkin <wil2001@columbia.edu>, "Dr. Steve Morse" <ssm20@columbia.edu>, "xc2273@columbia.edu" <xc2273@columbia.edu>, "[REDACTED]", "sck2165@cumc.columbia.edu" <sck2165@cumc.columbia.edu>  
**Subject:** RE: Abstract for WDA  
**Sent:** Tue, 28 Mar 2017 18:43:35 +0000

Sounds good to me...

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

+1.212.380.4473 (direct)  
+1.212.380.4465 (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

**From:** [REDACTED] **On Behalf Of** Jonna Mazet  
**Sent:** Thursday, March 23, 2017 1:43 PM  
**To:** William B. Karesh  
**Cc:** Tracey Goldstein; sja2127@cumc.columbia.edu; Chris Johnson; Denise J Greig; Wells, Heather L.; Dr. Damien Joly; Nathan Wolfe; Peter Daszak; Ian Lipkin; Dr. Steve Morse; xc2273@columbia.edu; [REDACTED]; sck2165@cumc.columbia.edu  
**Subject:** Re: Abstract for WDA

Beautiful!  
Jonna

On Wed, Mar 22, 2017 at 11:32 AM, William B. Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)> wrote:  
Very nice !!

BK

**William B. Karesh, D.V.M**  
*Executive Vice President for Health and Policy*

EcoHealth Alliance  
460 West 34th Street - 17th Floor  
New York, NY 10001 USA

[+1.212.380.4463](tel:+12123804463) (direct)

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Mar 20, 2017, at 5:27 PM, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)> wrote:

Dear All,

We were hoping to submit the abstract from our global coronavirus paper to present at the Wildlife Disease Association meeting this summer - please see the abstract below. As you are all co-authors on the paper I wanted to make sure you were happy for me to represent us on this work at the meeting - abstract is due April 1.

Please let me know if you questions, additions or concerns.

Best, Tracey

## **Global patterns in coronavirus diversity**

### **Abstract:**

Since the emergence of SARS-CoV and MERS-CoV it has become increasingly clear that bats are important reservoirs of CoVs. Despite this, only 16% of all CoV sequences in Genbank are from bats. The remaining 84% constitute sequences of known pathogens of public health or agricultural significance, indicating that current research effort is heavily biased towards describing known diseases rather than the 'pre-emergent' diversity in bats. Our study addresses this critical gap, and focuses on resource poor countries where the risk of zoonotic emergence is believed to be highest. We surveyed the diversity of CoVs in multiple host taxa from 20 countries to explore the factors driving viral diversity at a global scale. We identified sequences representing 100 discrete phylogenetic clusters, 91 of which were found in bats, and used ecological and epidemiologic analyses to show that patterns of CoV diversity correlate with those of bat diversity. This cements bats as the major evolutionary reservoirs and ecological drivers of CoV diversity. Co-phylogenetic reconciliation analysis was also used to show that host switching has contributed to CoV evolution, and a preliminary analysis suggests that regional variation exists in the dynamics of this process. Overall our study represents a model for exploring global viral diversity and advances our fundamental understanding of CoV biodiversity and the potential risk factors associated with zoonotic emergence.

--

Tracey Goldstein, PhD  
One Health Institute  
School of Veterinary Medicine



University of California  
Davis, CA 95616  
Phone: (530) 752-0412  
Fax: (530) 752-3318  
E-mail: [tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)

**From:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Sent:** Tue, 28 Mar 2017 21:42:29 +0200  
**Subject:** Re: Predict Ebola study on animals  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>  
**Cc:** "predict@ucdavis.edu" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>, PREDICTMGT <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>, "Chittenden, Kendra (Jakarta/Health)" <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>

No worries, Things like this happen.

Thanks!

On Tue, Mar 28, 2017 at 6:47 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Sorry,  
We thought we would discuss it on the MT call. We'll get you responses instead. Most are misunderstandings, likely stemming from miscommunications from our staff, unfortunately.  
Our traveling UCD/Columbia team had offered to do this briefing, which would have alleviated any of this, but the meeting was scheduled after they left. Therefore, a non-optimal person gave the briefing.  
We'll get you a written response,  
Jonna

On Tue, Mar 28, 2017 at 2:08 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi Jonna,

Apologies if I missed a reply to the email below.

Can you let us know by COB your time on Wednesday your responses to the suggestions. We'd like to be able to signal back to the mission that the suggestions were reviewed and indicate if there are any steps Predict will take based on them. It's okay to say if suggestions go beyond the scope of Predict or have already been addressed (or are in process) by Predict or others.

Thanks!

Andrew

*Andrew P. Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: [1-571-345-4253](tel:1-571-345-4253)  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Mar 20, 2017, at 7:47 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi,

See below for comments from CDC following the Predict visit.

Please let me know if you have any questions or if there is something that needs to be discussed or decided.

Thanks!

Andrew

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

From: **Christina Chappell** <[cchappell@usaid.gov](mailto:cchappell@usaid.gov)>  
Date: Thu, Mar 16, 2017 at 4:38 PM  
Subject: Fwd: Predict Ebola study on animals

To: Kendra Chittenden <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
Cc: Jennifer Mbabazi <[jmbabazi@usaid.gov](mailto:jmbabazi@usaid.gov)>, Tamar Bah <[tbah@usaid.gov](mailto:tbah@usaid.gov)>

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Here are the technical concerns/recommendations which have been raised by our CDC in-country counterparts following the PREDICT team's visit, which merit consideration and response from the PREDICT experts.

As we also discussed, we need to encourage the appropriate outreach/applications/planning to secure means for the potential/eventual need to export the samples (active or inactive, wildlife or domestic animals).

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Dear all,

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I hope this helps. If you have specific lab related questions, do not hesitate to reach out to Ebi (CDC) or Heba (DoS).  
Regards,  
Lise

Lise D. Martel, PhD, M.Ed, MPH  
CDC-Guinea Country Director

**REDACTED**

Email : [lmartel@cdc.gov](mailto:lmartel@cdc.gov)



Mobile phone: [1-571-345-4253](tel:1-571-345-4253)  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

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**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 28 Mar 2017 23:21:12 +0200  
**Subject:** Re: Predict Ebola study on animals  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** "predict@ucdavis.edu" <predict@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, "Chittenden, Kendra (Jakarta/Health)" <kchittenden@usaid.gov>, Brian Bird <bhbird@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>

Hi Jonna,

I think written with phone call is probably best.

Andrew

On Tue, Mar 28, 2017 at 10:47 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Andrew,

We are preparing the written response, but I wonder if a call with her from our team (and you) wouldn't be a better option. We don't want to be perceived as being dismissive, which can sometimes be assumed with an email response. Part of the problem, that we think we could have/should have handled better in person, is that some of what she is asking for our team to do involves take precautions only appropriate for healthcare or diagnostic workers dealing with acutely ill individuals/samples. We have checked with CDC Special Pathogens, and they do not use these practices when conducting their ecological studies, including when looking for Ebola and Marburg in bats.

So, we are preparing the response, but I have concerns that our response (without or instead of an associated discussion) will get us further down a road that we don't want to follow.

Please advise on preferred way forward,  
Jonna

PS -- some of the other points are valid and useful and can easily be addressed through email without controversy.

On Tue, Mar 28, 2017 at 12:42 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

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Thanks!

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Christina Chappell, MPH

USAID/Health Office

USAID

US Embassy Guinea

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UCDUSR0009584



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Regards,  
Lise

Lise D. Martel, PhD, M.Ed, MPH  
CDC-Guinea Country Director

REDACTED

Email : [lmartel@cdc.gov](mailto:lmartel@cdc.gov)

--

Andrew Clements, Ph.D.  
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**CC:** Jonna Mazet <jkmazet@ucdavis.edu>; predict@ucdavis.edu  
<predict@ucdavis.edu>; PREDICTMGT <predictmgt@usaid.gov>; Brian Bird  
<bhbird@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>  
**Sent:** 3/29/2017 11:11:12 AM  
**Subject:** Re: Predict Ebola study on animals

Will do. Lise (CDC) is currently on leave but I believe back next week. I'll touch base with Guinea USAID and CDC today

Sent from my iPhone

On Mar 29, 2017, at 2:08 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Sounds good to me.

Kendra: can you check with Christina et al. and CDC to see if they are available Tuesday or Wednesday next week for a phone call? Thanks.

*Andrew P. Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Mar 29, 2017, at 4:01 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Tuesday or Wednesday (early morning Pacific) next week would work for me. Let me know if that works for you, and I'll check in with others from country management. We have draft responses to all of the points, that I will consolidate today and get to you for review before sharing with Guinea CDC.

Have a good evening,  
Jonna

On Wed, Mar 29, 2017 at 3:53 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:  
Jonna,

When would be a good time for a phone call? Late next week?

Andrew

*Andrew P. Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

**Sent:** Wed, 29 Mar 2017 14:57:02 -0700  
**Subject:** Re: [predict] Fwd: Predict Ebola study on animals  
**From:** Brian Bird <bhbird@ucdavis.edu>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Tracey Goldstein <tgoldstein@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>  
[PREDICT-CDC Guinea responses - refined BB.docx](#)

Jonna,

Here is the nice refined version of my comments blended with the information from Metabiota. I think these convey our answers in a rational and polite way. Edit as you see fit.

-b

---

**From:** <jonna.mazet@gmail.com> on behalf of Jonna Mazet <jkmazet@ucdavis.edu>  
**Date:** Tuesday, March 28, 2017 at 10:06 AM  
**To:** Brian Bird <bhbird@ucdavis.edu>  
**Cc:** Tracey Goldstein <tgoldstein@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Subject:** Re: [predict] Fwd: Predict Ebola study on animals

Hi Brian,  
Could you prepare responses for anything you're fairly sure that MB won't be able to address properly for us to provide to USAID and CDC by COB Wednesday. We had planned to discuss with Andrew next week on the MT call, but now he wants to provide a response by Wednesday.  
I'm really tempted to say that we will address these concerns by replacing the management entity in-country. Some we need to consider and adjust our best practices, anyway.  
Have a nice day,  
Jonna

On Tue, Mar 21, 2017 at 12:15 PM, Brian Bird <bhbird@ucdavis.edu> wrote:  
I think we should try to meet and discuss these concerns. Some of them are easily sorted out, but some are not.

-b

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**From:** <goldsteintracey@gmail.com> on behalf of Tracey Goldstein <tgoldstein@ucdavis.edu>  
**Date:** Monday, March 20, 2017 at 1:45 PM  
**To:** David J Wolking <djwolking@ucdavis.edu>  
**Cc:** "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Subject:** Re: [predict] Fwd: Predict Ebola study on animals

That must be the meeting Franz did on the Monday after we left - which we had advised against... We did not meet with the CDC when we were there

On Mon, Mar 20, 2017 at 1:21 PM, David J Wolking <djwolking@ucdavis.edu> wrote:  
Hi,

Sharing this report-out from the CDC visit with our PREDICT team in Guinea. I don't think we made the best impression.

David

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

From: **Andrew Clements** <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
Date: Mon, Mar 20, 2017 at 11:47 AM  
Subject: [predict] Fwd: Predict Ebola study on animals  
To: "[predict@ucdavis.edu](mailto:predict@ucdavis.edu)" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>  
Cc: PREDICTMGT <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, "Chittenden, Kendra (Jakarta/Health)" <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>

Hi,

See below for comments from CDC following the Predict visit.

Please let me know if you have any questions or if there is something that needs to be discussed or decided.

Thanks!

Andrew

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

From: **Christina Chappell** <[cchappell@usaid.gov](mailto:cchappell@usaid.gov)>  
Date: Thu, Mar 16, 2017 at 4:38 PM  
Subject: Fwd: Predict Ebola study on animals  
To: Kendra Chittenden <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
Cc: Jennifer Mbabazi <[jmbabazi@usaid.gov](mailto:jmbabazi@usaid.gov)>, Tamar Bah <[tbah@usaid.gov](mailto:tbah@usaid.gov)>

Andrew, Kendra

Here are the technical concerns/recommendations which have been raised by our CDC in-country counterparts following the PREDICT team's visit, which merit consideration and response from the PREDICT experts.

As we also discussed, we need to encourage the appropriate outreach/applications/planning to secure means for the potential/eventual need to export the samples (active or inactive, wildlife or domestic animals).

Thank you  
Christina

Christina Chappell, MPH

*USAID/Health Office*

*USAID*



REDACTED

*Note: I can also be reached at [\(+1\) 724 698 8751](tel:+17246988751) while I am working from the United States*



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

From: **Martel, Lise (CDC/CGH/DGHP)** <[diz0@cdc.gov](mailto:diz0@cdc.gov)>

Date: Fri, Mar 10, 2017 at 1:36 PM

Subject: Predict Ebola study on animals

To: "Dickerson, Barbara J" <[DickersonBJ@state.gov](mailto:DickersonBJ@state.gov)>, Jennifer Mbabazi <[jmbabazi@usaid.gov](mailto:jmbabazi@usaid.gov)>, "Chappell, Christina (CDC [usaid.gov](mailto:usaid.gov))" <[cchappell@usaid.gov](mailto:cchappell@usaid.gov)>, Tamar Bah <[tbah@usaid.gov](mailto:tbah@usaid.gov)>

Cc: "Bile, Ebi (CDC/CGH/DGHP) (CTR)" <[efb6@cdc.gov](mailto:efb6@cdc.gov)>, "Diab, Heba I" <[DiabHI@state.gov](mailto:DiabHI@state.gov)>

Dear all,

Thank you for organizing the session with Predict. It was very informative and interesting. Ebola is a very sensitive subject, so I have a few suggestion that might prevent issues to arise with the MOH in regards to this study and also help the success of the study.

I was under the impression, after the presentation by Predict, that they had already placed a freezer and a generator at Dr. Magassouba's lab for the storage of specimen. This is not the case.

1. Specimen that have been received for this animal study have been stored in a -20 freezer that is different from the -80 freezer that contains human blood Ebola samples. This is good news from a safety perspective. The -80 freezer with Ebola specimen is locked and should not be opened as it contains positive samples that have not been neutralized. Predict might want to quickly acquire a -80 freezer (recommended temperature for blood samples for better conservation) to ensure proper storage of their samples.
2. Dr. Magassouba did not seem to have total clarity of what Predict would provide (freezer/generator) or the specifics of the study. I would recommend meeting with him, go over supplies and study, and do the same with Dr. Sakoba and Prof. Lamine.

Here are some additional recommendations

1. Predict should have a Memorandum of Understanding (MOU) signed by the MOH and Ministry of Livestock that explains the method used to ensure proper handling, neutralization, storage, and shipping of specimen. This was requested by the GoG for the human samples and is a hot topic of conversation right now because of direct safety concerns expressed by both the President and the Minister of Health.
2. The principal investigator on the ground should also be able to demonstrate that proper measures are being taken to ensure the prevention of human infection from potentially infected animal blood. In addition to PPE, proper training, and Trizol being used at the collection sites, it might be advisable to consider additional measures. No vaccine is available at this time. Possible measures:
  - a. daily temperature monitoring of all collectors and their immediate family
  - b. use of a sheet that records who collected which sample and link lab results to this line list of collectors after confirmation of PCR test in California. This should be regularly shared with MOH and time between collection and testing minimized as much as possible for rapid confirmation.
  - c. Field incidents (needle pricks, bites from bats, spill of test tubes or fluids should be well documented and shared
3. More clarification should be given as to why one aliquot is kept in Guinea. For what research will the samples be used? By whom? These should be captured in a research protocol shared with both MOH and Ministry of Livestock
4. The chain of custody, etc should be documented in an SOP.
5. All of these items should be discussed openly with the MOH and the Ministry of Livestock

Also, the person from the Department of State who is responsible for the MOU for the human samples and organizing the irradiation of samples to the US will be in town this weekend until Wednesday. Her name is Heba Diab. Feel free to reach out to her. She might have helpful tips for you.

I hope this helps. If you have specific lab related questions, do not hesitate to reach out to Ebi (CDC) or Heba (DoS).

Regards,

Lise

Lise D. Martel, PhD, M.Ed, MPH

CDC-Guinea Country Director

American Embassy

**REDACTED**

Email : [lmartel@cdc.gov](mailto:lmartel@cdc.gov)

--

Andrew Clements, Ph.D.

Senior Scientific Adviser

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: [1-571-345-4253](tel:1-571-345-4253)

E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

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Tracey Goldstein, PhD

One Health Institute

School of Veterinary Medicine

University of California

Davis, CA 95616

Phone: [\(530\) 752-0412](tel:5307520412)

Fax: [\(530\) 752-3318](tel:5307523318)

E-mail: [tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)

1. Specimen that have been received for this animal study have been stored in a -20 freezer that is different from the -80 freezer that contains human blood Ebola samples. This is good news from a safety perspective. The -80 freezer with Ebola specimen is locked and should not be opened as it contains positive samples that have not been neutralized. Predict might want to quickly acquire a -80 freezer (recommended temperature for blood samples for better conservation) to ensure proper storage of their samples.

We are happy that Dr. Magassouba could assist us in arranging a temporary storage solution for the PREDICT specimens that is separate from the human outbreak specimen collection. We agree that -80C storage is preferable, and the team has purchased two -80C freezers to upgrade the ultra-cold storage capacity at the VHF laboratory for all PREDICT specimens. These should be delivered during the second week of April.

Until that time, storage at -20C will be adequate for our primary diagnostic specimens which are stored inactivated in Trizol (guanidine isothiocyanate and phenol) as this will not affect the results of any subsequent molecular testing. Short term storage at -20C of our secondary specimens in virus-transport media, while not ideal, will be sufficient for subsequent analyses until our -80C freezer capacity is online.

2. Dr. Magassouba did not seem to have total clarity of what Predict would provide (freezer/generator) or the specifics of the study. I would recommend meeting with him, go over supplies and study, and do the same with Dr. Sakoba and Prof. Lamine.

Dr. Magassouba and our PREDICT country coordinator (Professor Camara) recently reviewed and reached an agreement (currently with the University of California Davis for final PREDICT approvals) that more clearly states exactly what each partner is responsible for in terms of laboratory supplies and equipment. For example, in this document it is clear that PREDICT will supply the two -80C freezers and cost share the fuel for the generators required for this equipment. We will be happy to provide Dr. Sakoba and Professor Lamine and update to clarify their concerns or questions.

Here are some additional recommendations

1. Predict should have a Memorandum of Understanding (MOU) signed by the MOH and Ministry of Livestock that explains the method used to ensure proper handling, neutralization, storage, and shipping of specimen. This was requested by the GoG for the human samples and is a hot topic of conversation right now because of direct safety concerns expressed by both the President and the Minister of Health.

The PREDICT team was granted permits for our work by the Ministry of Environment, Water, and Forests and the Ministry of Livestock and Animal Production prior to the initiation of any work in Guinea. These permits were granted in part because the team utilizes standardized protocols throughout the world to train staff on these issues including the safe collection, handling, storage, and shipping of specimens. As an added step specifically for Guinea, we are also following the recommendation of Dr. Sakoba to have our approved animal sampling Institutional Animal Care and Use (IACUC) protocol (which includes further details on sampling, and safe handling of animals and specimens) be reviewed and approved through the joint Guinean Ethics Committee that also includes members of the Ministry of Health. We are in the process of translating this master document into French for submission to this committee. We look forward to addressing any concerns they may have to ensure their concurrence with our activities.

2. The principal investigator on the ground should also be able to demonstrate that proper measures are being taken to ensure the prevention of human infection from potentially infected animal blood. In addition to PPE, proper training, and Trizol being used at the collection sites, it might be advisable to consider additional measures. No vaccine is available at this time. Possible measures:

- a. daily temperature monitoring of all collectors and their immediate family



- b. use of a sheet that records who collected which sample and link lab results to this line list of collectors after confirmation of PCR test in California. This should be regularly shared with MOH and time between collection and testing minimized as much as possible for rapid confirmation.
- c. Field incidents (needle pricks, bites from bats, spill of test tubes or fluids should be well documented and shared

We appreciate your concern for our team members. The PREDICT teams are trained to follow well established biosafety and animal and specimen handling protocols that have been used over the past 7 years in a variety of settings and including work with animal reservoirs of other high-consequence pathogens such as Nipah, Lassa, SARS-like, and MERS viruses. The single greatest risk to PREDICT staff is Rabies virus infection and all staff are required to obtain rabies vaccination before beginning any field work activities. An additional and very significant threat to the health of our staff is venomous snake bite. It would be very informative to hear if the CDC has any guidance or availability of anti-venoms that could be obtained by the in-country teams on an emergency basis if needed.

For the additional concerns:

- a) It is highly unlikely that PREDICT team members as part of their routine activities are at increased risk of exposure to pathogens from the animals being sampled above the background level of the local community who actively hunt and consume many of the animal species being sampled. Daily temperature monitoring of ecological field staff where appropriate PPE and adherence to biosafety protocols have been maintained does not seem warranted and is not standard practice. However, if a more significant exposure risk occurs (such as an animal bite that penetrates all layers of PPE), enhanced monitoring may be warranted on a case by case basis.
- b) During each working day/night of work, a record is generated of who participated in the sampling activities. However, PREDICT does not, by design, operate as a rapid response diagnostic laboratory, but is rather at its core a capacity building effort. The turnaround time from field-collection to virus detection and confirmation could range from weeks to several months. As in-country laboratory testing capacity continues to build we anticipate these turn-around times to shorten, but they will almost certainly be always beyond the short incubation time of most viral and bacterial infections.
- c) These types of incidents are recorded by the PREDICT team as part of our occupational health program, and are reported to the MoH on a regular basis. All individuals are encouraged to report any personal illness that may occur. If an illness is reported, these staff members typically to not participate in any team activities until their illness is resolved. If a significant illness does occur that may require rule-out testing the PREDICT team will contact the MoH and our CDC partners for guidance.

- 3. More clarification should be given as to why one aliquot is kept in Guinea. For what research will the samples be used? By whom? These should be captured in a research protocol shared with both MOH and Ministry of Livestock.

As standard best practice, PREDICT teams across the world share aliquots with the in-country government to build up local bio-banks of specimens. For example, this practice is also followed by the CDC Viral Special Pathogens teams doing similar work as PREDICT in Sierra Leone. It is at the discretion of the host country government to determine what research plans they have with the specimens as they are their biological and intellectual property. This is outlined as part of the agreement between PREDICT and the host country government. PREDICT strives to leave behind in-country technical expertise and a collection of specimens so that every country has the capacity to engage in further research work with other partners long after the PREDICT program has ended.

- 4. The chain of custody, etc should be documented in an SOP.


Records and inventories of the collected PREDICT specimens are maintained and include freezer map locations, and all specimens stored in locked freezers. If however a potential high-consequence pathogen



is detected, any remaining potentially infectious specimen will be transferred as soon as possible to the appropriate national or international reference laboratory depending on the pathogen and the in-country capacity with host-government approval and concurrence.

5. All of these items should be discussed openly with the MOH and the Ministry of Livestock

The PREDICT teams in all countries where the project is implemented strive to have open and transparent communication with all relevant government Ministries. Without their continued approval and support the goals of the PREDICT program would not be possible. The PREDICT team in Guinea is happy to discuss these issues further with the appropriate government representatives.

**From:** "Kevin Olival, PhD" <olival@ecohealthalliance.org>  
**To:**   
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Anna Willoughby <willoughby@ecohealthalliance.org>  
**Subject:** Re: Viral risk ranking data  
**Sent:** Thu, 13 Apr 2017 19:36:36 +0000  
[P1viruses PHB supertree.csv](#)  
[ATT00001.htm](#)



Attached is a .csv with Phylogenetic Host Breadth (PHB) max, median, and min, calculated for all P1 viruses from EIDITH using methods in HP3 and the mammalian supertree for distances. Note, any viruses with only one host (in EIDITH) will return a 0 value for PHB.

As a next step: for all the previously known viruses, we are going to compare how our understanding of host breadth has changed by adding in P1 host associations from what we previously knew from the literature (HP3). i.e. we will compare PHB values with HP3 data alone, and PHB values with literature + predict mammal hosts for the ~200 or so previously known viruses. We are just working to synonymize the viral species names in EIDITH with those in ICTV (that we used for HP3), so this will take a little bit more time. This should be an interesting output too.

Happy to discuss any of this as relevant for the viral ranking work if you have any questions. We can share code etc too as we collaborate further on this analysis.

Cheers,  
Kevin

**Kevin J. Olival, PhD**

Associate Vice President for Research

EcoHealth Alliance  
460 West 34th Street – 17th floor  
New York, NY 10001

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**REDACTED**

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[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Apr 3, 2017, at 3:00 PM, **REDACTED** > wrote:

Hi Kevin,

I hope you are feeling better, it's certainly the time of year for colds, a few have been circulating around our office recently. Congratulations on resubmitting the HP3 paper, fingers crossed for you that it gets accepted and published soon. For the risk ranking paper, we are looking for the host level data for the factors mentioned, which will then be used to assess breadth for a given virus. I have attached the risk ranking worksheet for your reference. Many thanks for your kind assistance, much appreciated!

Cheers,

**REDACTED**

**REDACTED**

Project Scientist, PREDICT Project of USAID  
Postdoctoral Researcher in Disease Ecology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA

Mobile: +1-530-601-3944

---

**From:** "Kevin Olival, PhD" <[olival@ecohealthalliance.org](mailto:olival@ecohealthalliance.org)>

**Date:** Monday, March 27, 2017 at 2:01 PM

**To:** **REDACTED**

**Cc:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>

**Subject:** Re: Viral risk ranking data

Hey **REDACTED**

Sorry, was out sick last week... no problem with sharing any of our data or outputs from HP3, but may be worth a quick call to get more clarity on exactly what you need for the viral ranking paper? Specifically, the two metrics you mentioned are host specific - so I could easily provide a csv with the values, but not sure that

UCDUSR0009596

would be too useful for the 800 or so mammals in our database. I think what you're after is the phylogenetic host breadth per virus?

In any case, the other big news is that we've finally (and again) resubmitted the HP3 paper, so we're very much hoping that it gets published soon! If/when it does, we're releasing all our data and code - so obviously have no issues with sharing things with you in advance of that to help out with this PREDICT paper, just wanted to get a better idea of what you would most immediately need.

Best,  
Kevin

**Kevin J. Olival, PhD**  
*Associate Vice President for Research*

EcoHealth Alliance  
460 West 34th Street – 17th floor  
New York, NY 10001

1.212.380.4478 (direct)

**REDACTED**

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[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Mar 24, 2017, at 4:28 PM, **REDACTED** > wrote:

Hi Kevin,

I hope you are well and enjoying the start of spring. Just a quick follow up our conversation in Pacifica with regards to your HP3 dataset and your/Peters offer of sharing the dataset for use in the viral risk ranking analysis. I'm specifically looking at using your animal mass and phylogenetic distance of host species to human's data, but am very open to other information you think will be a useful contribution to our viral risk ranking assessment. If you are able to share your data with me for use in the paper, I would be very appreciative.

Kind regards,

**REDACTED**

**REDACTED**

Project Scientist, PREDICT Project of USAID  
Postdoctoral Researcher in Disease Ecology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA

Mobile: +1-530-601-3944





"" , "viral\_species" , "known" , "n\_hosts\_total\_for\_virus" , "n\_noHoSa\_hosts" , "n\_noHoSa\_hosts\_super" , "max" , "mean" , "median"  
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 "3" , "Baboon Foamy virus" , TRUE , 1,1,1,0,0,0  
 "4" , "Bat adenovirus -I" , TRUE , 2,2,2,142.4,142.4,142.4  
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UCDUSR0009600

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**From:** Brian Bird <bhbird@ucdavis.edu>  
**To:** Nichol, Stuart T. (CDC/OID/NCEZID) <stn1@cdc.gov>; Rollin, Pierre (CDC/OID/NCEZID) <pyr3@cdc.gov>; Towner, Jonathan (Jon) (CDC/OID/NCEZID) <jit8@cdc.gov>; Klena, John D. (CDC/OID/NCEZID) <irc4@cdc.gov>; Barbara Knust <bkk0@cdc.gov>  
**CC:** Jonna Mazet <jkmazet@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>; William B. Karesh, D.V.M <karesh@ecohealthalliance.org>  
**Sent:** 4/26/2017 11:24:15 AM  
**Subject:** FW: death clusters in Liberia

Hi CDC friends,

This came across my desk this morning from a partner organization. I imagine that you are aware of this, but I'm passing it on just in case you haven't heard of it. It's certainly an interesting cluster of cases, looks like EBOV was ruled out at LIBR. At the current time, this is all I've heard of this health event. Perhaps you've heard more information?

All the best to you,

-Brian

Brian H. Bird DVM, MSPH, PhD  
One Health Institute  
1089 Veterinary Medicine Dr.  
School of Veterinary Medicine  
University of California, Davis  
bhbird@ucdavis.edu



## Situation Report on Cluster of deaths and Health events, Greenville Health District, Sinoe County 25 April 2017

### Situation Overview

Sinoe County in the southern part of Liberia reported an unexplained cluster of deaths on the 25<sup>th</sup> of April, 2017 at 10:30am.

25 April 2017, fourteen (14) cases with eight (8) deaths (case fatality rate of 57%) were reported from Greenville Health District, Sinoe County to the national level. The affected communities included Tear town, Congo town, Down town and Red hill.

Specimens were collected from the seven dead bodies and sent to the laboratory for testing.

At the moment, six (6) cases are being treated at the F.J. Grante in Greenville Health District, Sinoe County. None of the live cases had been discharged.

More field investigation is on-going in the affected communities.

### Highlights:

On April 25, 2017 the FJ Grante hospital reported unusual number of deaths. From approximately 2am to 11am seven deaths were reported.

The seven deaths are linked to one death that occurred on Sunday, April 23, 2017 of an 11 years old, female child from Teah's town community who presented on the same day with diarrhea, vomiting and mental confusion.

The child was taken immediately to the FJ Grante hospital and died within one hour after admission in the emergency room. The child attended a funeral (of one religious leader") on Saturday, 22 April, 2017 in Greenville. NB: The religious leader was reported to have been hospitalized in JFK hospital. He was diagnosed of high blood pressure.

The child presented with signs and symptoms that included: weakness and abdominal pains, vomiting and diarrhea.

On Monday, April 24, 2017, another patient, from Down town community who also attended the funeral of the religious leader presented with headache, body pain and skin itching and was admitted at the same night to FJ Grante hospital and died early in morning today April 25, 2017 by 2am.

Another lady from Rail hill community who attended the same funeral presented at FJ Grante hospital early in this morning (April 25, 2017) today with diarrhea and vomiting and died upon arrival.

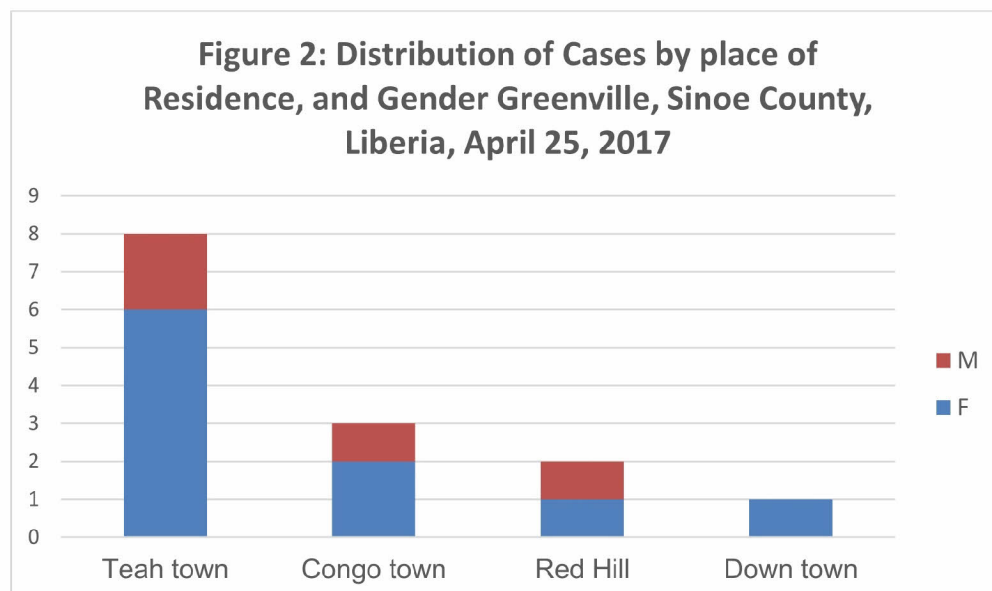
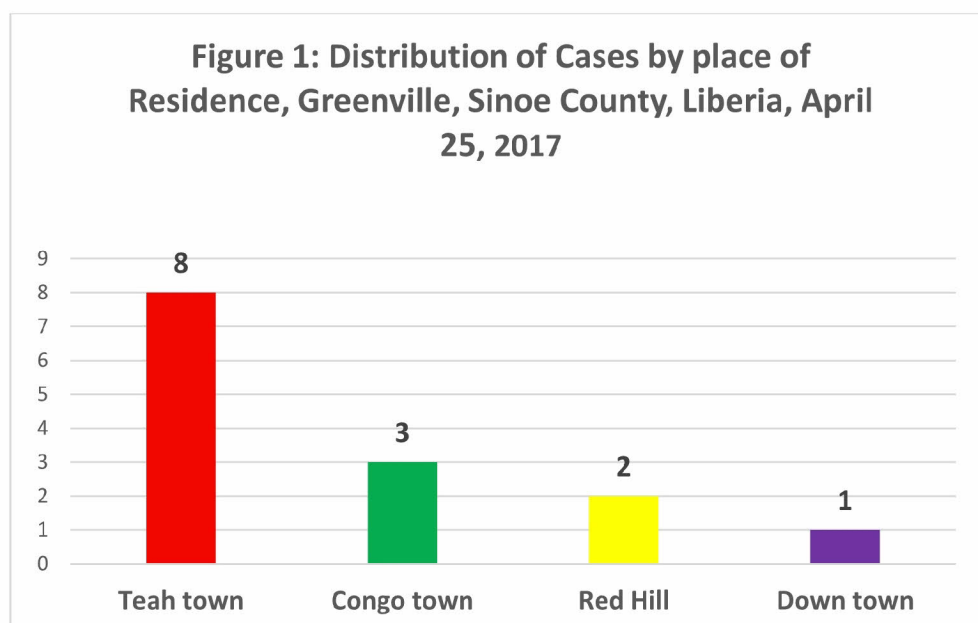
As of 11am, April 25, 2017 eight (8) deaths and six (6) cases were reported from the F.J. Grant Hospital.

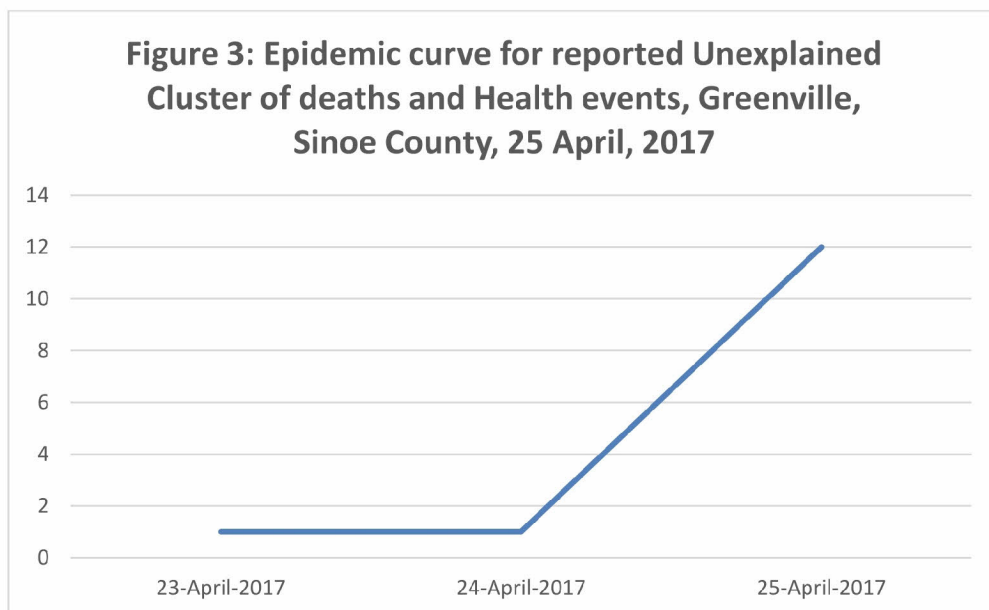
Cumulatively, 14 unexplained cluster of health events including 8 deaths (CFR 57%) have been reported from Sinoe County.

Of the 14 cases, 10 (74%) were female in the age range 10 – 54years, while 4 (26%) were male age range (12-21) years.

The four communities affected are Teah's Town (8 cases), Congo Town (3 cases), Red Hill (2) and Downtown (1 case) located in Greenville city.

The main source of the events is reported to have been the Funeral of religious leader in Greenville Health District, on the 22<sup>nd</sup> of April 2017.





## Probable risk factors

The event is driven by possible compounding predisposing factors such as:

- Attending funeral and re-pass at the deceased home
- The risk of consuming the same food
- Environmental exposure

## Response Activities

### Coordination

Overall coordination of the event response is at the County level and is coordinated by the County Superintendent with support of the Health Officer to review progress of implementation of response activities.

- The District rapid response and County rapid response teams have been reactivated as a result of the unexplained deaths and health events to coordinate the district response activities within affected communities.
- Cases are being investigated at the district level by the DHT.
- The district rapid response team is being provided technical and logistical support by WHO and other partners.
- Emergency incident management system was convened to provide guidance, technical advice and adequate resources to urgently contain the situation in Sinoe county.



### **Surveillance**

- Investigation and compilation of outbreak line list for all cases reported
- Surveillance has been heightened at district and community levels including community engagement and sanitization.
- Active case search is ongoing throughout the communities involving Community Health Assistants within affected communities.

### **Social mobilization activities**

- Community awareness is ongoing.
- The district health team has also embarked on mass awareness in public

### **Water Sanitation, and Hygiene (WASH)**

- Hand hygiene practices have been re-enforced at health facilities and communities in the affected areas

## **Challenges**

- The team is yet to draw some conclusions on the outbreak including lab confirmation. It is likely that more information will be provided tomorrow.

## **Planned Activities/recommendations**

### **Action points for County**

- Proper investigation of unexplained events.
- Safe and dignified burial should be conducted given that the dead bodies are still in the morgue.
- Communities should be sensitized on the reasons for safe and dignified burial.
- IPC at health facilities (Disinfect all facilities where the deceased are).
- Ensure required IPC supplies are available though there is no shortage in the county at the moment.
- Collect stool or urine specimen from live patients.
- Ensure that the required specimen collection kits are available.
- Update all linelist with required variables in order to construct the infection chain.
- Community engagement and reinforce of hand washing within affected communities.
- Detailed information of all cases (live and dead) will be provided in the next 24 hours.
- Management of live cases in the hospital as well as proper protection of the health workers.
- CHT to conduct community meetings with the affected communities.
- Community leaders and the public will be sensitized to minimize fear and panic.
- Environmental team to test the water source from the affected communities
- Surveillance team to update the line list and conduct immediately the field investigation

**Action Points for National**

- A technical team has been constituted and will depart on 26<sup>th</sup> April to support the country response
- The Ministry of will develop and circulate daily situational report and press release to the public
- Follow up the lab samples and ensure results are available by 26 April.
- Conduct daily operational and IMS meetings to monitor and support the response in Sinoe county.

**From:** Shana Gillette <sgillette@usaid.gov>  
**Sent:** Mon, 1 May 2017 16:08:05 -0400  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** Andrew Clements <aclements@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>, Alisa Pereira <apereira@usaid.gov>, "Dennis Carroll (DCarroll@usaid.gov)" <DCarroll@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, Anna Willoughby <willoughby@ecohealthalliance.org>  
**Subject:** [predict] Re: Need comments: PREDICT Modeling and Analytics: Emerging Disease Insight 2-pager on GVP economics

Hi Peter,  
Looks good to me. You may want to have an example that illustrates the statement:  
"Having a baseline of  
identified viral sequences  
would lead to earlier  
detection and quicker  
response times, lowering  
both epidemic frequency  
and impact."

And a few sentences describing in general the sampling strategy and its global reach.

Best,  
Shana

On Mon, May 1, 2017 at 4:03 PM, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

Hi Folks – just re-sending this request for comments on the 2-pager above.

If you can give it a quick read and let me know if there are any comments, corrections or suggestions for edits, we'll incorporate before we circulate more widely.

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance

460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor

New York, NY 10001

[+1.212.380.4473](tel:+12123804473) (direct)

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[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

---

**From:** Peter Daszak

**Sent:** Friday, April 21, 2017 1:31 PM

**To:** 'Andrew Clements'; Jonna Mazet; William B. Karesh

**Cc:** Alisa Pereira; Shana Gillette; Dennis Carroll ([DCarroll@usaid.gov](mailto:DCarroll@usaid.gov)); [predict@ucdavis.edu](mailto:predict@ucdavis.edu); Kevin Olival, PhD; Anna Willoughby ([willoughby@ecohealthalliance.org](mailto:willoughby@ecohealthalliance.org))

**Subject:** PREDICT Modeling and Analytics: Emerging Disease Insight 2-pager on GVP economics

**Importance:** High

Hi Andrew, Alisa, Shana and Dennis,

Just wanted to send round this latest PREDICT M&A 'Emerging Disease Insight' 2-pager, on the economics and virus estimates for the GVP.

Please send any comments, thoughts, suggestions and we'll take these on board before we distribute this any further...

Cheers,

Peter

**Peter Daszak**

*President*

UCDUSR0009617



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*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

---

**From:** Andrew Clements [<mailto:aclements@usaid.gov>]  
**Sent:** Wednesday, April 19, 2017 4:43 AM  
**To:** Jonna Mazet; William B. Karesh; Peter Daszak  
**Cc:** Alisa Pereira; Shana Gillette  
**Subject:** Africa-wide report on the impacts of climate change on human health

FYI -- a link to a blog about an Africa-wide report on the impacts of climate change on human health. There is a link the to the report in the blog.

<https://www.climatelinks.org/blog/new-report-synthesizes-evidence-climate-risks-health-africa>

*Andrew P. Clements, Ph.D.*

*Senior Scientific Adviser*

*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*

*U.S. Agency for International Development*

*Mobile phone: [1-571-345-4253](tel:15713454253)*

*Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

--

Shana Gillette, PhD  
Senior Risk Mitigation Adviser  
Emerging Threats Division

Office of Infectious Disease  
Bureau for Global Health  
U.S. Agency for International Development (USAID)  
[Office Phone: 202-712-1456](tel:2027121456)

Work Mobile: REDACTED  
Email: [sgillette@usaid.gov](mailto:sgillette@usaid.gov)


From: **REDACTED**  
To: zishi **REDACTED**  
Cc: Jonna Mazet <**REDACTED**>  
Subject: Re: Reminder: Invitation to participate in virus risk ranking assessment  
Sent: Thu, 4 May 2017 02:29:27 +0000  
[RiskRankingParticipantWorksheet.xlsx](#)

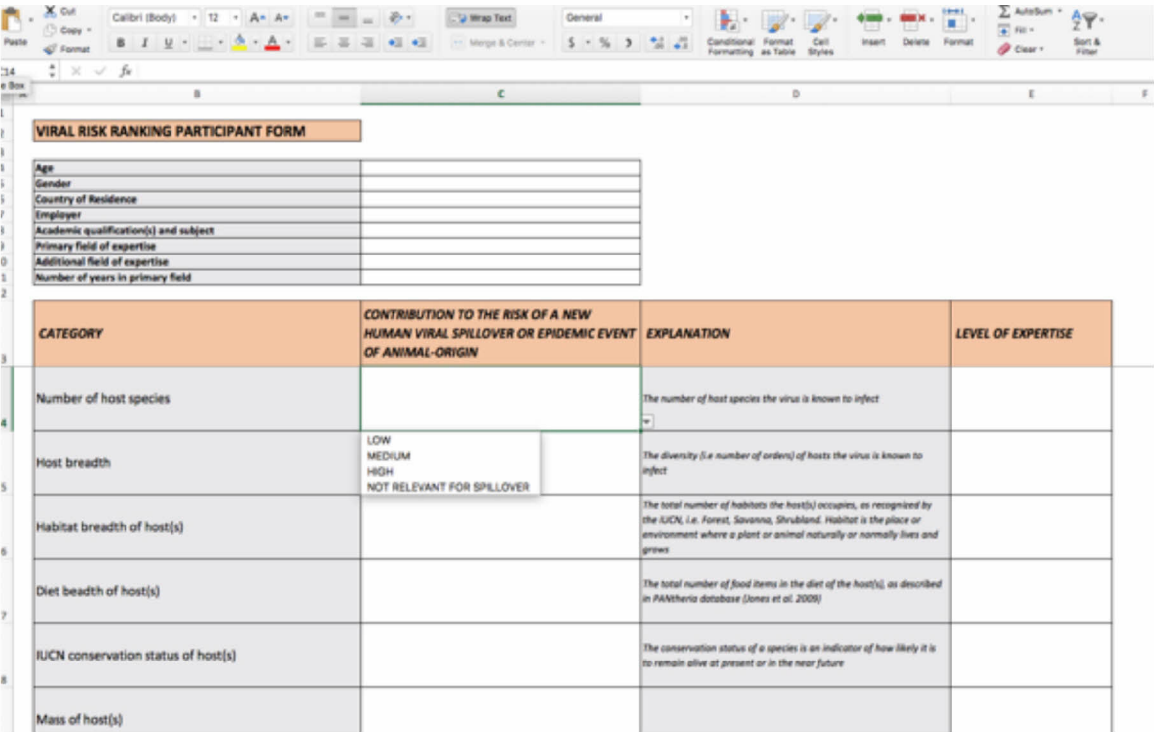
Dear Dr. Zhengli Shi,

Thank you for your prompt response to the invitation. In response to your question, the spreadsheet (attached again for your convenience) has been pre-populated with potential answers to the contribution to risk, level of expertise, and demographic information. Level of expertise is a self-assessment of your experience /knowledge within the category being assessed. For example, one may be an expert in viral genomics, but a novice in environmental influences on viral spillover/spread.

I have provided more detailed instructions below, which I hope will assist you in the completion of assessment. However, please do not hesitate to contact me if you have any further questions.

Instructions:

- 1) Open the spreadsheet and click on the empty cell in ‘Contribution to the risk..’ or ‘Level of expertise’
- 2) Click on the small arrow  that will appear in the lower right corner of the cell
- 3) Dropdown options will now appear below the cell (see image below)
- 4) Click on the option you deem most relevant for the category



| CATEGORY                            | CONTRIBUTION TO THE RISK OF A NEW HUMAN VIRAL SPILLOVER OR EPIDEMIC EVENT OF ANIMAL-ORIGIN | EXPLANATION  | LEVEL OF EXPERTISE |
|-------------------------------------|--|--|--------------------|
| Number of host species              |  | The number of host species the virus is known to infect  |                    |
| Host breadth                        | LOW<br>MEDIUM<br>HIGH<br>NOT RELEVANT FOR SPILLOVER  | The diversity (i.e. number of orders) of hosts the virus is known to infect  |                    |
| Habitat breadth of host(s)          |  | The total number of habitats the host(s) occupies, as recognized by the IUCN, i.e. Forest, Savanna, Shrubland. Habitat is the place or environment where a plant or animal naturally or normally lives and grows |                    |
| Diet breadth of host(s)             |  | The total number of food items in the diet of the host(s), as described in PANthera database (Jones et al. 2009)   |                    |
| IUCN conservation status of host(s) |  | The conservation status of a species is an indicator of how likely it is to remain alive at present or in the near future  |                    |
| Mass of host(s)                     |  |  |                    |

Sincerely,

**REDACTED**

**REDACTED**

Project Scientist, PREDICT Project of USAID  
Postdoctoral Researcher in Disease Ecology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive

Davis, CA 95616, USA

Mobile: REDACTED

---

From: zlshe <REDACTED>

Date: Wednesday, May 3, 2017 at 6:24 PM

To: Jonna Mazet <REDACTED>

Cc: REDACTED

Subject: Re: Reminder: Invitation to participate in virus risk ranking assessment

Dear Jonna,

I didn't see the dropdown options and don't know how to fill the form.

Best regards,  
Zhengli,

---

SHI Zhengli, Ph. D  
Senior Scientist & Professor  
Wuhan Institute of Virology, Chinese Academy of Sciences

REDACTED

China

Tel & Fax: REDACTED

Email: REDACTED

---

From: Jonna Mazet

Date: 2017-05-04 05:18

To: REDACTED

CC: REDACTED

Subject: Reminder: Invitation to participate in virus risk ranking assessment

Dear Dr. Zhengli Shi,

We hope that you previously received our email soliciting your expert opinion and requesting your participation in a short multidisciplinary process to assess spillover risk from newly detected viruses. As an expert in the field of infectious diseases, your contribution to this exercise would be highly valued and appreciated. If possible, please take a moment of your time to review the information below, and complete the attached worksheet. We anticipate the time allocation to this exercise will be **10 to 20 minutes**.

As you may have heard, the USAID-supported PREDICT project ([www.predict.global](http://www.predict.global)) has identified short sequences from nearly 1000 unique viral taxonomic units (by consensus PCR followed by sanger sequencing) from viral families known to have members that cause zoonotic diseases. These viruses have been detected in samples collected from animals in more than 20 countries in tropical regions considered to be hotspots for emerging zoonotic disease risk.

As a globally renowned scientist in the field of infectious diseases, we would like to incorporate your expert opinion into an evaluation of the relative impact that select host, environmental, and viral factors contribute to the risk of a new human viral spillover or epidemic event that might originate from novel or known viruses of animal origin. At this point, we are primarily interested in how much each parameter contributes to the overall risk of such an event occurring. The levels of severity within each of the parameters will be evaluated through a different process.

The expert opinion you provide will be combined with that of other top experts in the field and is intended to contribute to a risk ranking module that will be distributed to and evaluated by the scientific community both through the peer-reviewed publication process and via an interactive web application. All contributions to this exercise are voluntary, and identifying information will not be published or be otherwise made available unless you



let us know that it is acceptable/desirable to acknowledge you. We are only soliciting opinions from a select group of professionals with relevant expertise; therefore, we ask that the attached worksheet remain confidential and not to be shared with others.

**Instructions:**

1. Please open and save the worksheet with your initials in the title (i.e. RiskRankingPartipantWorksheet\_ZG.xlsx)
2. Complete the 'Demographic Information' at the top of the spreadsheet
3. Answer all categories for 'CONTRIBUTION TO THE RISK OF A NEW HUMAN VIRAL SPILLOVER OR EPIDEMIC EVENT OF ANIMAL-ORIGIN' and 'LEVEL OF EXPERTISE' using provided dropdown options
4. Please return your completed worksheet ASAP to **REDACTED** original deadline **April 28<sup>th</sup> 2017** extended for your participation to May 12 or by arrangement if this date is impossible and you would still like to contribute.

We sincerely hope that we can count on your important involvement in the process and that you will accept our gratitude for your time and contribution to scientific collaboration.

Sincerely,

Prof. Jonna Mazet

Global Director, PREDICT USAID  
Professor of Disease Ecology and Epidemiology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA  
[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)

**REDACTED**

Project Scientist, PREDICT USAID  
Postdoctoral Researcher in Disease Ecology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA

**REDACTED**

Produced in Native Format

**From:** [REDACTED]  
**To:** zlshe <[REDACTED]>  
**Cc:** Jonna Mazet <[REDACTED]>  
**Subject:** Re: Reminder: Invitation to participate in virus risk ranking assessment  
**Sent:** Thu, 4 May 2017 03:34:33 +0000

Dear Dr. Zhengli Shi,

Please accept my apologies for the problems you are experiencing. I have provided a list answer options below for completion of the spreadsheet. When you start typing the answer, the cell should auto-populate for you. Thank you for your patience, and I hope this will overcome the problem with the dropdown symbol.

**CONTRIBUTION TO THE RISK OF A NEW HUMAN VIRAL SPILLOVER OR EPIDEMIC EVENT OF ANIMAL-ORIGIN**

Answer options:

- LOW
- MEDIUM
- HIGH
- NOT RELEVANT FOR SPILLOVER

**LEVEL OF EXPERTISE**

Answer options:

- NOVICE
- COMPETENT
- PROFICIENT
- EXPERT
- MASTER

Sincerely,

[REDACTED]


[REDACTED]

Project Scientist, PREDICT Project of USAID  
Postdoctoral Researcher in Disease Ecology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA

Mobile: [REDACTED]

---

**From:** zlshe <[REDACTED]>  
**Date:** Wednesday, May 3, 2017 at 8:22 PM  
**To:** [REDACTED]  
**Cc:** Jonna Mazet <[REDACTED]>  
**Subject:** Re: Re: Reminder: Invitation to participate in virus risk ranking assessment

Thanks。 The problem is I can't see the dropdown symbol .

---

SHI Zhengli, Ph. D  
Senior Scientist & Professor  
Wuhan Institute of Virology, Chinese Academy of Sciences  
[REDACTED]  
China


From: REDACTED  
Date: 2017-05-04 10:29  
To: [zlshi](#)  
CC: [Jonna Mazet](#)  
Subject: Re: Reminder: Invitation to participate in virus risk ranking assessment

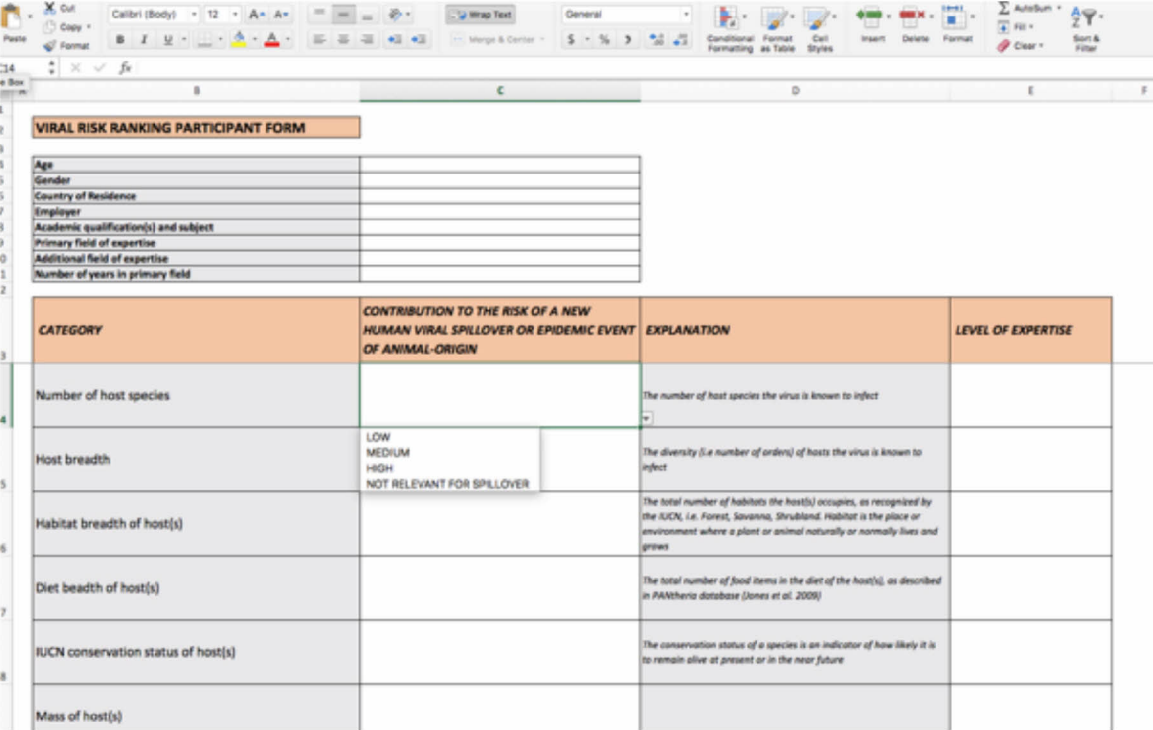
Dear Dr. Zhengli Shi,

Thank you for your prompt response to the invitation. In response to your question, the spreadsheet (attached again for your convenience) has been pre-populated with potential answers to the contribution to risk, level of expertise, and demographic information. Level of expertise is a self-assessment of your experience /knowledge within the category being assessed. For example, one may be an expert in viral genomics, but a novice in environmental influences on viral spillover/spread.

I have provided more detailed instructions below, which I hope will assist you in the completion of assessment. However, please do not hesitate to contact me if you have any further questions.

Instructions:

- 1) Open the spreadsheet and click on the empty cell in ‘Contribution to the risk..’ or ‘Level of expertise’
- 2) Click on the small arrow  that will appear in the lower right corner of the cell
- 3) Dropdown options will now appear below the cell (see image below)
- 4) Click on the option you deem most relevant for the category



Sincerely,

REDACTED

REDACTED



School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA

Mobile: REDACTED

From: zlshi <REDACTED>

Date: Wednesday, May 3, 2017 at 6:24 PM

To: Jonna Mazet <REDACTED>

Cc: Zoe Grange <zlgrange@ucdavis.edu>

Subject: Re: Reminder: Invitation to participate in virus risk ranking assessment

Dear Jonna,

I didn't see the dropdown options and don't know how to fill the form.

Best regards,  
Zhengli,

SHI Zhengli, Ph. D  
Senior Scientist & Professor  
Wuhan Institute of Virology, Chinese Academy of Sciences

REDACTED

China

Tel & Fax: REDACTED

Email: REDACTED

From: Jonna Mazet  
Date: 2017-05-04 05:18  
To: REDACTED  
CC: REDACTED  
Subject: Reminder: Invitation to participate in virus risk ranking assessment

Dear Dr. Zhengli Shi,

We hope that you previously received our email soliciting your expert opinion and requesting your participation in a short multidisciplinary process to assess spillover risk from newly detected viruses. As an expert in the field of infectious diseases, your contribution to this exercise would be highly valued and appreciated. If possible, please take a moment of your time to review the information below, and complete the attached worksheet. We anticipate the time allocation to this exercise will be **10 to 20 minutes**.

As you may have heard, the USAID-supported PREDICT project ([www.predict.global](http://www.predict.global)) has identified short sequences from nearly 1000 unique viral taxonomic units (by consensus PCR followed by sanger sequencing) from viral families known to have members that cause zoonotic diseases. These viruses have been detected in samples collected from animals in more than 20 countries in tropical regions considered to be hotspots for emerging zoonotic disease risk.

As a globally renowned scientist in the field of infectious diseases, we would like to incorporate your expert opinion into an evaluation of the relative impact that select host, environmental, and viral factors contribute to the risk of a new human viral spillover or epidemic event that might originate from novel or known viruses of animal origin. At this point, we are primarily interested in how much each parameter contributes to the overall risk of such an event occurring. The levels of severity within each of the parameters will be evaluated through a different process.

The expert opinion you provide will be combined with that of other top experts in the field and is intended to contribute to a risk ranking module that will be distributed to and evaluated by the scientific community both through the peer-reviewed publication process and via an interactive web application. All contributions to this exercise are voluntary, and identifying information will not be published or be otherwise made available unless you let us know that it is acceptable/desirable to acknowledge you. We are only soliciting opinions from a select group of professionals with relevant expertise; therefore, we ask that the attached worksheet remain confidential and not to be shared with others.

**Instructions:**

1. Please open and save the worksheet with your initials in the title (i.e. RiskRankingPartipantWorksheet\_ZG.xlsx)
2. Complete the 'Demographic Information' at the top of the spreadsheet
3. Answer all categories for 'CONTRIBUTION TO THE RISK OF A NEW HUMAN VIRAL SPILLOVER OR EPIDEMIC EVENT OF ANIMAL-ORIGIN' and 'LEVEL OF EXPERTISE' using provided dropdown options
4. Please return your completed worksheet ASAP to **REDACTED**; original deadline **April 28<sup>th</sup> 2017** extended for your participation to May 12 or by arrangement if this date is impossible and you would still like to contribute.

We sincerely hope that we can count on your important involvement in the process and that you will accept our gratitude for your time and contribution to scientific collaboration.

Sincerely,

Prof. Jonna Mazet

Global Director, PREDICT USAID  
Professor of Disease Ecology and Epidemiology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA  
[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)

**REDACTED**

Project Scientist, PREDICT USAID  
Postdoctoral Researcher in Disease Ecology  
One Health Institute  
School of Veterinary Medicine  
University of California Davis  
1089 Veterinary Medicine Drive  
Davis, CA 95616, USA

**REDACTED**

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** predict@ucdavis.edu <predict@ucdavis.edu>  
**CC:** Alisa Pereira <apereira@usaid.gov>; Shana Gillette <sgillette@usaid.gov>  
**Sent:** 5/9/2017 2:00:45 AM  
**Subject:** [predict] Guinea

Hi all,

Kendra was recently in Guinea and provided some feedback (see below). Can you provide an update on your plans for Guinea to include improving communications?

Thanks!

Andrew

-----

Specific comments:

1. Great to have the freezers in place.
2. The PREDICT coordinator indicated that they plan to sample from 9,000 more animals but recently PREDICT HQ told them to reduce to 6,000 and focus only on wildlife and not the additional 3,000 livestock as originally planned. They did not know why there was a change. But they really feel livestock sampling is very important.
3. The coordinator said he did not know what they plan was for the lab. They are waiting for the PREDICT HQ to send them the plans- when will training start, estimated timeframe for in-country testing and whether to follow-up with GoG about sending out some of the samples already collected.
4. Is Predict still waiting on the IRB for the behavioral studies?
5. Overall communication between the Predict field and HQ seems to have decreased since Corina left.

*Andrew P. Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

**From:** Lisa Kramer <lkramer@usaid.gov>  
**Sent:** Tue, 23 May 2017 09:44:56 +0300  
**To:** Sarah Paige <spaige@usaid.gov>, Andrew Thaiya <[REDACTED]>, Austine Bitek <abitek@zdukenya.org>, "Folorunso Fasina (FAOKE)" <[REDACTED]>, Joseph Kamau <jkamau@primateresearch.org>, Mutuku Mwanthi <[REDACTED]>, "Megan E. Vodzak" <vodzakme@si.edu>, Hellen Amuguni <janetrix.amuguni@tufts.edu>, Innocent Rwego <inwego@umn.edu>, David Mutonga <david.mutonga@thepalladiumgroup.com>, Andrew Kitua <[REDACTED]>  
**Cc:** Dawn Zimmerman <zimmermand@si.edu>, <[REDACTED]>, Katey Pelican <pelicank@umn.edu>, NYATANYI Thierry <nthierry@umn.edu>, <[REDACTED]>, <[REDACTED]>, predict@ucdavis.edu, Shana Gillette <sgillette@usaid.gov>, Marilyn Crane <mcrane@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Lindsay Parish <lparish@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Andrew Clements <aclements@usaid.gov>, Nadira Kabir <nkabir@usaid.gov>  
**Subject:** [predict] Re: Kenya GHSA-EPT Coordination Call or Meeting  
[Kenya Coordination Call 22May2017.docx](#)

Colleagues,

Thank you to all who could join the call yesterday. Attached are my notes from our coordination call. Please review, fill-in any gaps, and correct any misunderstandings.

Best,  
Lisa

**Lisa Kramer**  
Regional Emerging Pandemic Threats Advisor  
USAID/Kenya and East Africa  
+254-20-862-2107 (O)  
[REDACTED] (C)

On Mon, May 22, 2017 at 4:13 PM, Lisa Kramer <lkramer@usaid.gov> wrote:

Hello I have opened the Kenya coordination call. PLease join if you can.

**Lisa Kramer**  
Regional Emerging Pandemic Threats Advisor  
USAID/Kenya and East Africa  
+254-20-862-2107 (O)  
[REDACTED] (C)

On Fri, May 19, 2017 at 2:40 PM, Lisa Kramer <lkramer@usaid.gov> wrote:

Colleagues,

Our next coordination call is scheduled for next Monday at 4:00 pm.Nairobi time. I have just sent out an updated calendar invite with new call in information. Due to my conflicting schedules, we have also not met in-person for a number of months. Therefore, I propose that our June coordination be an in-person meeting. We will confirm the date and availability on our call on Monday. I look forward to talking with all of you and I hope you all have a good weekend. .

Best regards,  
Lisa

**Lisa Kramer**  
Regional Emerging Pandemic Threats Advisor



USAID/Kenya and East Africa

+254-20-862-2107 (O)

- REDACTED (C)

## **KENYA GHSA/EPT Coordination Call**

**22 May 2017**

### **Participants:**

FAO: Fascina, Stella, Austine,

P&R: Sambe, Thomas, David and Andrew,

PREDICT2: Megan, Joseph,

OHW: Andrew, Innocent and Hellen

USAID: Lisa

Special Guest appearance from the Rwanda Zoonotic Disease Prioritization Team

P&R Activities that had been planned:

- ZTWG meeting used to finalize the TOR for the ZTWG. Draft circulated and comments provided. TOR has been updated and now with the ZDU. Also shared information about the budget advocacy plan. Outline for developing the new OH Strategic Plan was completed.
- The PHE Framework has been finalized for publishing. Now at the stage for printing/validation.
- Policy environment assessment was initiated and is now on hold.
- For the next few months the primary plan had been to advance the OH Strategic Plan, but now on hold because of suspension.
- Had been planning one on one meetings with the ministry officials for advocacy.
- High level policy meeting was put on hold because of election activities that might result in different officials in the near future. Postponed to year 4 in November.
- Had planned to support another ZTWG meeting in August. On hold.
- GHSA Coordination meeting and Validation meeting for PHE Framework. On hold.

P2

- Successful sampling trip in Turkana
- IRB has been locally approved and now with UC Davis that will allow human sampling concurrent with the animal sampling in June.
- Imitated the camel testing.


FAO:

- Because of elections, we will take a break from field work from late July until mid August.
- Workplan approved 2-3 weeks ago.
- Joint training with P2 at IPR on BSS. 13 people trained.
- RVF evaluation with MALF, to establish sentinel surveillance sites.

- MERS longitudinal surveillance in Isiolo.
- AMR activities concluded the policy and national action plan for Kenya for OH MOH and MALF
- Drug supply chain proposal???
- Installed LIMS in CVL, KARLO to interconnect the vet and human health lab and the epi unit.
- Finalized guideline for PZDs – Brucellosis and RVF
- OH SMART tool have planned a training for early June and the date has been set. And RVF sentinel sites.
- Proficiency testing for 4 agents, some are ZD, including Brucellosis. DTRA funding includes PPR, Brucellosis, FMD, ASF – significant events
- ASL – national steering committee on the 5<sup>th</sup> of June. All the cabinet secretaries informed. Need to go ahead with the event. Discussed with Yilma and global headquarter and determined no direct relationship with the MOH and no money to the MOH so will continue. Most of the officers will be invited on an individual capacity.

#### OHW:

- March Risk Analysis training in Nakuru, ### participants – KWS, MOH, MALF, hospitals, lab, universities. Planning to follow-up in Year 4
- April Nakuru OH club in Nakuru National Park to learn about the conservation efforts and challenges to work through various OH competencies. 100 students from UoN and MOI
- April Deans and Focal Persons, ZDU, FAO to develop the Annual Workplan for Year 4
- Regional workplan meeting in June in Kampala for all OHCEA
- Students to OH Demo site – 30 students from all 3 schools at the same site in Amboseli from 2<sup>nd</sup> July. Preparing the logistics now.
- Letters to county directors to attach students to labs from 19 June to prepare students for these field internships.
- OH Workforce Workshop with FAO, on hold. Waiting for additional guidance.

**From:**  **To:** Cara Chrisman <cchrisman@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, Eddy Rubin <erubin@metabiota.com>, "Nathan Wolfe" <nwolfe@metabiota.com>, Jonna Mazet <jkmazet@ucdavis.edu>, "Brooke Watson" <watson@ecohealthalliance.org>, Dennis Carroll <dcarroll@usaid.gov> **Cc:** Brooke Genovese <bgenovese@ucdavis.edu> **Subject:** GVP - 5/25 Call Minutes + New Action Items **Sent:** Thu, 25 May 2017 18:05:00 +0000

Hi everyone,

Thank you for a great meeting this morning/afternoon. I would like to attach the meeting minutes and new action items.

Best,



## 5/25 Meeting minutes

### 1. Outreach

- **Tim Ziemer:** No outreach yet, awaiting slide decks to be complete. Slides will be sent out this afternoon.
- **Biomerieux:** Outreach to industry partner. They want to be involved but no funding available at this point. Dennis will be meeting Merieux Foundation next week.
- **Johnson & Johnson:** Peter will be meeting them next week. May also be interested and want to be involved in projects.
- **Wellcome Trust:** Potential meeting in June/July
- **Alumina:** Follow up (Dennis)
- **Mark Smolinski:** Teleconference with Mark and Barbara Hahn (One Health advocate) at the Curie Institute (Jonna). He may be interested in starting country projects. Skoll global threats rearrangement: Mark will be head of pandemic threats

### 2. PMAC update

Line up for PMAC 18. Half day or full day pre-conference work on Mon or Tues. This can be structured freely.

- Opening plenary/presentation: innovative approaches for future threats (panel discussion). Someone from GVP, SEPI etc. will be on panel.
- Both outreach/open forum type or steering committee could work. Concept note needed by Sep 30. Start thinking about who to invite (AMR and EID related people) (later in the summer).

### 3. First cut of updated pitch deck

Will be sent out to the group by the end of the day. There will ultimately be multiple decks for different audiences.

### 4. Working Group Deliverables Discussion

- Next steps are to identify gaps for further clarification. Date for meetings, invitations must be set. Global standardized projects in multiple countries. Standardization approach with lab platform, data platform etc.
- Clarify real objectives and goals for the working group. Bring influential people to see projects, make decisions in working group, and oversee standardization of approaches, ensure equitable and open access.
- Plan press release when the paper is published.

### 5. Other topic

- Richard Wilcox: was not encouraging outreach until things settle on his side.
- Yasha and Brooke are starting to write up a scientific piece on site collection. Group should start examining site selection including political situation. Ex) substitute Libya with political stable site.
- Phase A, B, C: Share broadly with group. Country/site

Meeting next week: focus on working group paper

UCDUSR0009633



- o Look at document closely, check for consistency and identify gaps. First block of meeting: start with laboratory, then Science and Tech etc. Develop advisory committee. Ex) Ian
- o Eddie will not be available next week

#### May 25<sup>th</sup> Action Items

- Peter – draft timeline for proceedings of the working group
- Cara and Dennis – develop agenda for next week's conference call to look at document closely
- Dennis - follow up with Alumina
- Dennis – send pitch slide decks to group
- Nathan - will reach out to Dan Jansen (no updates on Costa Rica since last communication)
- Brooke – send new map to Dennis
- All – start brainstorming who to invite to PMAC meeting and send Eri list of names

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 30 May 2017 21:31:36 +0200  
**Subject:** OH meeting in Canada  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Dennis Carroll <dcarroll@usaid.gov>

Hi Jonna,

I see you were on this email from John MacKenzie about the next OH meeting in Canada.

What are your thoughts on his suggestion that PREDICT and P&R once again construct a satellite symposium as was done in Melbourne?

Andrew

Begin forwarded message:

**From:** John Mackenzie <[REDACTED]>  
**Date:** May 23, 2017 at 5:00:02 AM EDT  
**To:** Dennis Carroll <dcarroll@usaid.gov>  
**Cc:** "[REDACTED]" <[REDACTED]>, "[REDACTED]", "Chris Vanlangendonck" (c.vanlangendonck@onehealthplatform.com)" <c.vanlangendonck@onehealthplatform.com>, Jonna Mazet <[REDACTED]>  
**Subject:** FW: One Health Platform cooperation request

Dear Dennis,

I write to follow up on the letter sent to you last month by my colleague, Ab Osterhaus. We are really excited by the 5<sup>th</sup> congress as the One Health Platform will be hosting it for the first time, and doing so in collaboration with the University of Saskatchewan and our African partners (the Southern African Centre for Infectious Disease Surveillance (SACIDS), One Health CDC Kenya and the One Health Central and Eastern Africa (OHCEA)).

We are very keen to have a strong input into the congress and the scientific program from you and USAID, especially with the PREDICT and RESPOND projects, but not necessarily confined to these projects. With the success of the symposia in Melbourne, I would like to suggest that PREDICT and RESPOND once again construct symposia to be held as satellite symposia. They provide an excellent international window into their respective projects, as well as giving your international partners the opportunity to present their work at a large gathering and to meet and network with others with similar interests.

As Ab mentioned, we are establishing a One Health Fellowship fund which incorporates a 'leaders of tomorrow' concept. While I am certain some of your international partners in PREDICT, RESPOND and other relevant projects will fit

into this concept, we would be very grateful for any additional help you could find to help this worthy cause.

I have attached the first announcement and Ab's letter again, for your information, and would like to remind you again of the program construction – the congress will have 4 principal streams: two will be scientific presentations and form the scientific basis of the congress; one will be devoted to antimicrobial resistance, underlining its importance to human health; and the final stream will be concerned with science policy and will be directed at policy makers.

We look forward to hearing from you.

With warm personal regards,

John

Professor John S Mackenzie,

A large black rectangular box with the word "REDACTED" in white, bold, sans-serif capital letters, centered within the box.

REDACTED

Begin doorgestuurd bericht:

**Van:** Ab Osterhaus  
<[a.osterhaus@onehealthplatform.com](mailto:a.osterhaus@onehealthplatform.com)>

**Onderwerp:** One Health Platform cooperation request

**Datum:** 20 april 2017 10:47:51 CEST

**Aan:** Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>

Dear Dr. Carroll,

Dear Dennis,

I hope this e-mail finds you well.

I'm attaching an official request for collaboration in view of the upcoming 5th International One Health Congress, to be held in Saskatoon, Canada.

Looking forward to getting in touch.

Best regards,

Prof. A.D.M.E. Osterhaus

ONE HEALTH PLATFORM Chair  
It's all connected  
[www.onehealthplatform.com](http://www.onehealthplatform.com)

*Andrew P. Clements, Ph.D.  
Senior Scientific Adviser  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*



**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Thu, 1 Jun 2017 16:03:34 -0700  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** "predict@ucdavis.edu" <predict@ucdavis.edu>  
**Subject:** [predict] Re: 5 EPT evaluation questions

Jonna,

Want me to share with our own management team or you want to hold onto this for awhile? Pretty interesting to see the proposed line of inquiry even if it is still evolving...

David

On Thu, Jun 1, 2017 at 3:55 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Thanks Andrew, received, these are big questions!

David

On Thu, Jun 1, 2017 at 1:26 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

### Evaluation Questions

- 1 What contributions has the EPT2 program made toward developing sustainable country capacity to strengthen cross-sectoral "One Health" capacities and coordination to prevent, detect, and respond to (a) emerging pandemic threats and (b) endemic diseases?
- 2 What contributions has the EPT2 program made toward identifying and filling key knowledge gaps to improve the effectiveness of prevention (including risk mitigation), detection and response to emerging pandemic threats?
  - What gaps still remain?
- 3 What contributions has the EPT2 program made toward engaging and coordinating the efforts of international organizations, donors, and technical partners to improve One Health collaboration as well as prevention, detection and response to emerging pandemic threats?
- 4 How has the EPT2 program contributed to defining and achieving the objectives of the Global Health Security Agenda (GHSA); and how has GHSA supplemental funding impacted the original objectives of the EPT2 program?
  - How did the West Africa Ebola outbreak (which preceded GHSA) affect the original objectives of the EPT2 program?
- 5 What aspects of the EPT2 program are on track to meet objectives (and what program aspects are not likely to meet objectives) by the end of the program period?

*Andrew P. Clements, Ph.D.*

*Senior Scientific Adviser*

*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*

*U.S. Agency for International Development*

*Mobile phone: [1-571-345-4253](tel:1-571-345-4253)*

*Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*



**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Cara Chrisman <cchrisman@usaid.gov>, "Dennis Carroll (DCarroll@usaid.gov)" <DCarroll@usaid.gov>, "Jonna Mazet (jkmazet@ucdavis.edu)" <jkmazet@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, **REDACTED**  
**Cc:** Anthony Ramos <ramos@ecohealthalliance.org>  
**Subject:** FW: NYTimes article mentions GVP!  
**Sent:** Tue, 20 Jun 2017 14:26:36 +0000

Our reach out to Don McNeil at the NY Times didn't result in a full article yet (he'll wait for the paper to come out), but he clearly likes the GVP and gives it a mention and a link to our website in the article below...

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4473  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

---

**From:** Anthony Ramos [mailto:ramos@ecohealthalliance.org]  
**Sent:** Tuesday, June 20, 2017 9:38 AM  
**To:** Peter Daszak  
**Subject:** Fwd: NYTimes article mentions GVP!

Begin forwarded message:

**From:** Anthony Ramos <[ramos@ecohealthalliance.org](mailto:ramos@ecohealthalliance.org)>  
**Date:** June 19, 2017 at 3:32:54 PM EDT  
**To:** Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, "Kevin Olival, PhD" <[olival@ecohealthalliance.org](mailto:olival@ecohealthalliance.org)>, Jon Epstein <[epstein@ecohealthalliance.org](mailto:epstein@ecohealthalliance.org)>, "William B. Karesh" <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>, Brooke Watson <[watson@ecohealthalliance.org](mailto:watson@ecohealthalliance.org)>, Yasha Feferholtz <[feferholtz@ecohealthalliance.org](mailto:feferholtz@ecohealthalliance.org)>, Henry Peterson <[peter@ecohealthalliance.org](mailto:peter@ecohealthalliance.org)>  
**Subject:** NYTimes article mentions GVP!

My contact at NYTimes just mentioned to me a story he wrote that mentions GVP!!

Check it out,

**The High-Tech Device That's Like a Bouncer for Mosquitoes - NYTimes, June 19th**  
<https://nyti.ms/2sHXWTi>

**Anthony M. Ramos**  
*Senior Director, Marketing and Development*

EcoHealth Alliance  
460 West 34th Street – 17th floor  
New York, NY 10001

1.212.380.4469 (direct)

**REDACTED** (mobile)

1.212.380.4465 (fax)

[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

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**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** **REDACTED** Cara Chrisman <cchrisman@usaid.gov>, "Dennis Carroll (DCarroll@usaid.gov)" <DCarroll@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>  
**Cc:** Anthony Ramos <ramos@ecohealthalliance.org>  
**Subject:** RE: NYTimes article mentions GVP!  
**Sent:** Tue, 20 Jun 2017 16:13:26 +0000

Nicely done!

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4473

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---

**From:** **REDACTED**  
**Sent:** Tuesday, June 20, 2017 12:05 PM  
**To:** Peter Daszak; Cara Chrisman; Dennis Carroll (DCarroll@usaid.gov); Jonna Mazet; Eddy Rubin  
**Cc:** Anthony Ramos  
**Subject:** RE: NYTimes article mentions GVP!

Hi Peter,

Thank you for sharing this. Our communications team has tweeted about this article.

Have a great day,

**REDACTED**

**REDACTED**  
One health leadership fellow  
University of California, Davis  
One Health Institute  
School of Veterinary Medicine

---

**From:** Peter Daszak [<mailto:daszak@ecohealthalliance.org>]  
**Sent:** Tuesday, June 20, 2017 7:27 AM  
**To:** Cara Chrisman <[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)>; Dennis Carroll ([DCarroll@usaid.gov](mailto:DCarroll@usaid.gov)) <[DCarroll@usaid.gov](mailto:DCarroll@usaid.gov)>; Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>; Eddy Rubin <[erubin@metabiota.com](mailto:erubin@metabiota.com)>; **REDACTED**  
**Cc:** Anthony Ramos <[ramos@ecohealthalliance.org](mailto:ramos@ecohealthalliance.org)>  
**Subject:** FW: NYTimes article mentions GVP!  
**Importance:** High

Our reach out to Don McNeil at the NY Times didn't result in a full article yet (he'll wait for the paper to come out), but he clearly likes the GVP and gives it a mention and a link to our website in the article below...

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
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---

**From:** Anthony Ramos [<mailto:ramos@ecohealthalliance.org>]  
**Sent:** Tuesday, June 20, 2017 9:38 AM  
**To:** Peter Daszak  
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**From:** Anthony Ramos <[ramos@ecohealthalliance.org](mailto:ramos@ecohealthalliance.org)>  
**Date:** June 19, 2017 at 3:32:54 PM EDT  
**To:** Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, "Kevin Olival, PhD" <[olival@ecohealthalliance.org](mailto:olival@ecohealthalliance.org)>, Jon Epstein <[epstein@ecohealthalliance.org](mailto:epstein@ecohealthalliance.org)>, "William B. Karesh" <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>, Brooke Watson <[watson@ecohealthalliance.org](mailto:watson@ecohealthalliance.org)>, Yasha Feferholtz <[feferholtz@ecohealthalliance.org](mailto:feferholtz@ecohealthalliance.org)>, Henry Peterson <[peterperson@ecohealthalliance.org](mailto:peterperson@ecohealthalliance.org)>  
**Subject:** NYTimes article mentions GVP!

My contact at NYTimes just mentioned to me a story he wrote that mentions GVP!!

Check it out,

**The High-Tech Device That's Like a Bouncer for Mosquitoes - NYTimes, June 19th**  
<https://nyti.ms/2sHXWTi>

**Anthony M. Ramos**  
*Senior Director, Marketing and Development*

EcoHealth Alliance  
460 West 34th Street – 17th floor  
New York, NY 10001

1.212.380.4469 (direct)  
**REDACTED** mobile)

1.212.380.4465 (fax)

[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

**From:** Cara Chrisman <cchrisman@usaid.gov>  
**Sent:** Thu, 29 Jun 2017 11:18:42 -0400  
**Subject:** Re: Can we get these numbers updated? thanks  
**To:** [REDACTED]  
**Cc:** Dennis Carroll <dcarroll@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Brooke Watson <watson@ecohealthalliance.org>

Hi Eri,  
I believe you mentioned this in your email as being accurate as of May, but just to quadruple check, the 820 new viruses is the final count for the slide referenced below, correct? We were looking back at the 2014 update where it was 815 and just wanted to make sure there hadn't been a further update.

Thanks!  
Cara

Cara J. Chrisman, PhD  
Senior Infectious Diseases Technical Advisor  
Emerging Threats Division  
Office of Infectious Disease  
Bureau for Global Health  
U.S. Agency for International Development (USAID)

Desk: (202) 712-1161  
Cell: [REDACTED]  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

On Wed, Jun 28, 2017 at 4:03 PM, Cara Chrisman <[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)> wrote:

Hi [REDACTED]  
Thanks for providing the updated numbers and checking those which have remained the same.

Best,  
Cara

Cara J. Chrisman, PhD  
Senior Infectious Diseases Technical Advisor  
Emerging Threats Division  
Office of Infectious Disease  
Bureau for Global Health  
U.S. Agency for International Development (USAID)

Desk: [\(202\) 712-1161](tel:(202)712-1161)  
Cell: [REDACTED]  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

On Fri, Jun 23, 2017 at 6:57 PM, [REDACTED] wrote:

Hi Dennis,

Please see the updated numbers below. I have underlined the numbers that have been changed.

UCDUSR0009645

- Spanning >30 countries (-- 33 to be exact)
- Over \$ 130 million invested to date
- Eight years +
- Another \$80+ million obligated/anticipated for activities over next 3 years

Categories for 'The Systems and Capacities Build' (3.3K, 60, 74K) and 'Viruses detected' (820 and 182) are accurate (as of May 2017).

Best wishes,

REDACTED

REDACTED

One health leadership fellow

University of California, Davis

One Health Institute

School of Veterinary Medicine

**From:** Dennis Carroll [mailto:[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)]

**Sent:** Friday, June 23, 2017 2:04 PM

**To:** REDACTED

**Subject:** Re: Can we get these numbers updated? thanks

Terrific. Thanks REDACTED All the best

d

On Fri, Jun 23, 2017 at 5:01 PM, REDACTED wrote:

Hi Dennis,

I have talked to the PREDICT staff in charge and we will have updated numbers soon.

I will share them as soon as they become available.

With thanks,

REDACTED



REDACTED

One health leadership fellow

University of California, Davis

One Health Institute

School of Veterinary Medicine

**From:** Dennis Carroll [mailto:[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)]

**Sent:** Friday, June 23, 2017 11:37 AM

**To:** Cara Chrisman <[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)>; REDACTED Brooke Watson <[watson@ecohealthalliance.org](mailto:watson@ecohealthalliance.org)>

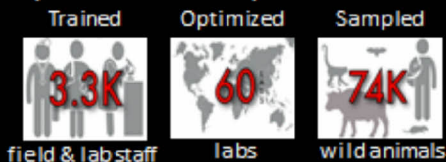
**Subject:** Can we get these numbers updated? thanks

## Feasibility: Large scale "Proof of Concept"

The feasibility of GVP was validated through USAID's PREDICT Project

- Spanning >30 countries
- Over \$120 million invested to date
- Seven years+
- Another approx. \$90 million obligated for activities over next 3 years

### Systems and Capacities Built



### Viruses detected



--

Dr. Dennis Carroll

Director, Emerging Threats Program

Bureau for Global Health

U.S. Agency for International Development

Office: [202-712-5009](tel:202-712-5009)

Mobile: REDACTED

UCDUSR0009647

--

Dr. Dennis Carroll

Director, Emerging Threats Program

Bureau for Global Health

U.S. Agency for International Development

Office: [202-712-5009](tel:202-712-5009)

Mobile: **REDACTED**

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Chittenden, Kendra (Jakarta/Health) <kchittenden@usaid.gov>; Brian Bird <bhbird@ucdavis.edu>; Jonna Mazet <jkmazet@ucdavis.edu>; Khadijat Mojidi <kmojidi@usaid.gov>; Saad El-Din Hassan <shassan@usaid.gov>; Dorothy Peprah <dpeprah@usaid.gov>  
**CC:** Pereira, Alisa (GH/HIDN) <apereira@usaid.gov>; Shana Gillette <sgillette@usaid.gov>  
**Sent:** 7/3/2017 9:42:41 AM  
**Subject:** Fwd:

Hi all,

I've drafted a letter related to revising the Predict SLA for Sierra Leone.

Please take a look and let me know if it needs any adjustments.

Thanks!

Andrew

--

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

3 July 2017

Dr. Kargbo  
Chief Medical Officer  
Ministry of Health and Sanitation  
Freetown, Sierra Leone

Dear Dr. Kargbo,

I am writing in regard to the change of the implementing partner for the USAID PREDICT project in Sierra Leone and to request your assistance in updating the existing Service Level Agreement for PREDICT.

As you may know, the USAID PREDICT project is a global effort to identify emerging viral threats (such as Ebola) and reduce the risk of them causing outbreaks in human populations. The PREDICT project is a partnership which includes the University of California-Davis, EcoHealth Alliance, Metabiota, the Smithsonian Institution, and the Wildlife Conservation Society. The University of California-Davis is the lead partner for this global project and receives and manages all USAID funding for the project. In each country where PREDICT works, one of the five PREDICT partners serves as the implementing partner.

From 2014 to the present, Metabiota has been the PREDICT implementing partner in Sierra Leone under a sub-award which transfers funding from the University of California-Davis. As you are aware, PREDICT is in the process of changing its implementing partner in Sierra Leone from Metabiota to the University of California-Davis. From the USAID perspective, there is no change since the University of California-Davis is still the overall lead partner and still manages the funding. Rather than transfer funds to Metabiota which then transfers funds to the local partners in Sierra Leone, the University of California-Davis as the new implementing partner will transfer funds directly to the same local partners. The scope of work for PREDICT in Sierra Leone and all activities are expected to remain unchanged.

Since the current Service Level Agreement for the PREDICT project in Sierra Leone specifically mentions Metabiota as the implementing partner, it is necessary to change the implementing partner name to the University of California-Davis. I would be very appreciative if you could assist in this matter. My colleagues at the USAID/Sierra Leone and the PREDICT project are available to assist as needed.

Please let me know if you have any question or require additional information. Thank you.

Sincerely,

Andrew Clements, Ph.D.  
PREDICT Project Manager  
United States Agency for International Development (USAID)  
Bureau for Global Health  
Washington, D.C.

CC: Mr. Yaya Conteh, Ministry of Health and Sanitation  
Ms. Dorothy Peprah, USAID/Sierra Leone  
Dr. Brian Bird, PREDICT project, University of California-Davis

**From:** Brooke Genovese <bgenovese@ucdavis.edu>  
**To:** David John Wolking <djwolking@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "Woutrina A Smith" <wasmith@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "Peter Daszak" <daszak@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, Karen Saylors <ksaylors@metabiota.com>, "Eddy Rubin" <erubin@metabiota.com>, Molly Turner <turner@ecohealthalliance.org>, Brian Bird <bhbird@ucdavis.edu>, Damien Joly <djoly@metabiota.com>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, "Anthony, Simon J." <sja2127@cumc.columbia.edu>, Leilani Francisco <francisco@ecohealthalliance.org>, "fuchs@ecohealthalliance.org" <fuchs@ecohealthalliance.org>, "afine@wcs.org" <afine@wcs.org>, "luciano@ecohealthalliance.org" <luciano@ecohealthalliance.org>, "MurrayS@si.edu" <MurrayS@si.edu>  
**Cc:** Jake Athanas <jathanas@metabiota.com>, Amanda Andre <amanda.andre@ecohealthalliance.org>, "lane@ecohealthalliance.org" <lane@ecohealthalliance.org>, Megan M Doyle <mmdoyle@ucdavis.edu>  
**Subject:** [predict] All-Country Meeting Dates  
**Sent:** Thu, 13 Jul 2017 18:56:59 +0000

Hello EB,

I'm writing to propose dates for the 2018 PREDICT All-Country meeting. On our end, **January 9 – 11, 2018** appears to be a good option. These dates do not conflict with PMAC (week of Jan. 28 – Feb. 3), and would keep the meeting early in the new year.

The location for the meeting is still TBD, but will likely be either Brussels, Belgium or Munich, Germany. Feel free to weigh in with thoughts/concerns!

**Please let me know if these dates are suitable for your schedules.**

Thanks everyone!

Very best,

Brooke Genovese  
Project Manager  
Executive Analyst  
One Health Institute  
School of Veterinary Medicine  
Tel: 530-752-6459  
[bgenovese@ucdavis.edu](mailto:bgenovese@ucdavis.edu)



**From:** David J Wolking <djwolking@ucdavis.edu>  
**To:** Clements, Andrew (GH/HIDN) <AClements@usaid.gov>  
**CC:** Shana Gillette <sgillette@usaid.gov>; Cara J. Chrisman <cchrisman@usaid.gov>; Chittenden, Kendra (Jakarta/Health) <kchittenden@usaid.gov>; Tiffany D'mello <tdmello@usaid.gov>; Alisa Pereira Emerging Threats Division <apereira@usaid.gov>; predict@ucdavis.edu <predict@ucdavis.edu>  
**Sent:** 9/5/2017 1:34:49 PM  
**Subject:** [predict] Agenda for PREDICT semi-annual meeting in NYC (Sept. 12 2017)

Hi there,

Please find attached an agenda for next week's meeting.

Best,

David



**PREDICT Semi-Annual Consortium Meeting  
American Marketing Association (AMA)  
1601 Broadway, New York, NY  
September 12, 2017**

***Agenda***

***September 12<sup>th</sup> (PREDICT with USAID Management Team)***

- 9:00 am**      **Welcome, agenda overview & goals for meeting (Jonna)**
- 9:15 am**      **Evolving planning landscape for 2017-2018 (Andrew & Jonna)**
- 9:30 am**      **One Health surveillance (Chris & Country Leads)**
- 10:15 am**     **Break**
- 10:45 pm**     **Investigating behavioral risk & engaging communities to share results/reduce risks (Leilani)**
- 11:30 pm**     **Lab capacity & testing strategy to inform on risk (Tracey & Simon)**
- 12:00 pm**     **Working lunch onsite & IM team (Tammie)**
- 1:00 pm**      **Modeling & Analytics (Peter & Kevin)**
- 1:45 pm**      **Results communication & data sharing discussion (Tammie, Tracey & Simon)**
- 2:30 pm**      **Ebola Host Project (Brian et al)**
- 3:00 pm**      **Break**
- 3:15 pm**      **Capacity building success stories (Woutrina)**
- 3:45 pm**      **One Health partnerships & coordination (Billy & Catherine)**
- 4:15 pm**      **Discussion of what we will accomplish by end of P-2**
- 5:00 pm**      **Telling our story – M&E, GHSA, & beyond**
- 7:00 pm**      **Dinner with PREDICT team & USAID Management**

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Fri, 15 Sep 2017 21:53:01 +0200  
**Subject:** Re: PREDICT International Travel Request  
**To:** Katherine Leasure <kaleasure@ucdavis.edu>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>

Approved subject to mission concurrence.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Sep 15, 2017, at 8:13 PM, Katherine Leasure <[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)> wrote:

*Please find below an international travel request for your review and approval. Please let me know if you have any questions. Thanks!*

1. Gilardi (Rwanda, Uganda): \$2,500 airfare/\$291 (Kigali), \$340 (Kampala) max daily per diems

Travel Requests –

1. UC Davis would like to request travel approval for Dr. Kirsten Gilardi to travel from Davis, California, USA to Kigali, Rwanda and Kampala, Uganda from October 16-26, 2017 to meet with PREDICT staff and partners.

**Trip purpose:** This trip will enable Dr. Gilardi to meet with PREDICT Country Coordinators from Rwanda, Uganda, and eastern Democratic Republic of the Congo at MGVP headquarters in Musanze, Rwanda and Kampala, Uganda, conduct field site visits with staff, and check on Year 4 work in all three countries. She will attend the 4<sup>th</sup> GHSA High Level Ministerial Event scheduled October 25-27, 2017 in Uganda, which will likely be coupled with a USAID EPT-2 Partners meeting (exact schedule TBD). Dr. Gilardi will also meet with Governments of Uganda and Rwanda laboratory partners to check on progress with sample testing and One Health capacity strengthening for staff and partners. ***Her tentative travel dates in each country are as follows – Rwanda: October 17-20, Uganda: October 20-25***

**Katherine Leasure**

HR/Payroll/Financial Assistant  
One Health Institute  
University of California, Davis  
530-752-7526  
530-752-3318 FAX  
[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.

To unsubscribe from this group and stop receiving emails from it, send an email to

[predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit

<https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/01da01d32e4e%2431d27800%2495776800%24%40ucdavis.edu>.

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Sat, 18 Nov 2017 23:51:06 -0800  
**Subject:** Fwd: PRO/AH/EDR> Marburg virus disease - Uganda (07): (MX) susp.  
**To:** "Gregory Adams (GH/AA/GHI)" <gadams@usaid.gov>, Angela Wang <awang@usaid.gov>, "Lisa Kramer (Nairobi/EA/RHH)" <lkramer@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, alongwagar@usaid.gov, spaige@usaid.gov, Kirsten Gilardi <kgilardi@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, [REDACTED], akibria@usaid.gov, Alisa Pereira <apereira@usaid.gov>, rechalar@usaid.gov

Suspected case in another district of Uganda. Samples sent to UVRI.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

Begin forwarded message:

**From:** [promed-edr@promedmail.org](mailto:promed-edr@promedmail.org)  
**Date:** November 19, 2017 at 1:27:23 AM GMT+1  
**To:** [promed-post@promedmail.org](mailto:promed-post@promedmail.org), [promed-edr-post@promedmail.org](mailto:promed-edr-post@promedmail.org), [promed-ahead-post@promedmail.org](mailto:promed-ahead-post@promedmail.org)  
**Subject:** PRO/AH/EDR> Marburg virus disease - Uganda (07): (MX) susp.  
**Reply-To:** [promedNOREPLY@promedmail.org](mailto:promedNOREPLY@promedmail.org)

MARBURG VIRUS DISEASE - UGANDA (07): (MOROTO) SUSPECTED  
\*\*\*\*\*

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: Fri 17 Nov 2017 13:48  
Source: URN [edited]  
<<https://ugandaradionetwork.com/story/moroto-put-on-alert-as-patient-dies-of-hemorrhagic-fever>>

Moroto district is under health surveillance following the mysterious death of a 16-year-old pupil from Lia primary school.

The primary-6 pupil was rushed to Moroto Army Barracks HC1V on [Tue 14 Nov 2017] night with signs akin to the Marburg virus, a highly virulent epidemic-prone disease associated with high case fatality rates. The virus is transmitted by direct contact with the blood, body fluids and tissues of infected persons or animals.

Medical personnel say that the patient was bleeding and vomiting blood. She died on [Wed 15 Nov 2017] and buried in Oyam district. Moroto District Health Officer Andrew Rews Ilukol says that blood samples have been taken for testing at the Uganda Virus Research Institute, Entebbe to establish the cause of bleeding and death of the minor.

Ilukol told URN that the district has already coordinated with the Ministry of Health and World Health Organization officials within the



region to handle any emergencies. He, however, called for calm among the community as they await the results from Entebbe.

At the Barracks where the patient was admitted prior to her death, persons who came in close contact with her have been isolated and their movements restricted. The Army has also restricted entry to the Barracks and put up a hand washing facility at the gate for all people entering the Barracks.

It's the 1st case of Marburg reported in Moroto since the Ministry Of Health confirmed an outbreak of Marburg virus in Kween district, Sebei sub-region on [Thu 19 Oct 2017].

As of [Tue 14 Nov 2017] 3 cases had been reported including 2 confirmed cases and one probable case. All 3 cases have died, resulting in a case fatality rate of 100 percent. The cases were epidemiologically linked and all belong to the same family.

The 1st probable case was a 35-year-old herdsman who frequently hunted near the area of Kaptum, known for its bat-infested caves. He was admitted to hospital on [Wed 20 Sep 2017], with Marburg-like symptoms and died 5 days later. The 1st and 2nd confirmed cases were his relatives who died later.

Prior to his death, the 2nd confirmed case traveled to Kenya where he visited his relatives in West Pokot County, as well as a traditional healer in Trans Nzoia County.

The affected districts are in a rural, mountainous area located on the border with Kenya, about 300km [186.411 mi] northeast of Kampala on the northern slopes of Mount Elgon National Park. The Mount Elgon caves are a major tourist attraction, and are host to large colonies of cave-dwelling fruit bats, known to transmit the Marburg virus.

The ministry, together with the World Health Organisation have undertaken active case search, death surveillance, safe and dignified burials and community mobilization in Kween and Kapchorwa districts and parts of Kenya where the cases had visited. Enhanced surveillance activities will continue until [Thu 7 Dec 2017], according to the Ministry of Health.

Uganda has previous experience in managing recurring Ebola and Marburg virus disease outbreaks. Cases have historically been reported among miners and travelers who visited caves inhabited by bat colonies in Uganda.

[Byline: Edward Eninu]

--  
Communicated by:  
ProMED-mail from HealthMap Alerts  
<[promed@promedmail.org](mailto:promed@promedmail.org)>

[This new case is quite distant from the 3-case cluster in Uganda. Clearly these are independent Marberg virus acquisitions. The source of the virus in this latest case is not stated. This report provides a



summary of the recent cases of MVD in Uganda and possible exposure in Kenya, when one of the cases traveled across the border to seek treatment from a local herbalist. There has been proactive surveillance of possible contacts on both sides of the border by the health authorities with the assistance of the WHO and other organizations. One hopes that the measures taken as mentioned above are sufficient to prevent spread of the disease.

Maps of Uganda can be seen at  
<[http://en.wikipedia.org/wiki/Districts\\_of\\_Uganda](http://en.wikipedia.org/wiki/Districts_of_Uganda)> and  
<<http://healthmap.org/promed/p/97>>.  
Maps of Kenya can be seen at <<http://tinyurl.com/kck73tk>> and  
<<http://healthmap.org/promed/p/44292>>; a map showing the location of Trans-Nzoia county in Kenya can be accessed at  
<[https://en.wikipedia.org/wiki/Trans-Nzoia\\_County](https://en.wikipedia.org/wiki/Trans-Nzoia_County)>. - Mod.TY

A HealthMap/ProMED-mail map can be accessed at:  
<<http://healthmap.org/promed/p/5702>>.]

[See Also:  
Marburg virus disease - Uganda (QW,QP), Kenya (TN) WHO  
<http://promedmail.org/post/20171108.5430664>  
Marburg virus disease - Kenya (02): (TN) NOT  
<http://promedmail.org/post/20171102.5420814>  
Marburg virus disease - Kenya (TN) ex Uganda: (QW, QP) susp.  
<http://promedmail.org/post/20171101.541919>  
Marburg virus disease - Uganda (06): (QW, QP)  
<http://promedmail.org/post/20171029.5411148>  
Marburg virus disease - Uganda (05): (QW)  
<http://promedmail.org/post/20171026.5406833>  
Marburg virus disease - Uganda (04): (QW)  
<http://promedmail.org/post/20171025.5403740>  
Marburg virus disease - Uganda (03): (QW)  
<http://promedmail.org/post/20171024.5401319>  
Marburg virus disease - Uganda (02): (QW)  
<http://promedmail.org/post/20171020.5393573>  
Marburg virus disease - Uganda: (QW)  
<http://promedmail.org/post/20171019.5391580>]

.....sb/mpp/ty/ec/mpp  
\*#####\*  
\*\*\*\*\*

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For assistance from a human being, send mail to:

<[postmaster@promedmail.org](mailto:postmaster@promedmail.org)>.

#####  
#####

List-Unsubscribe: <http://ww4.isid.org/promedmail/subscribe.php>

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 21 Nov 2017 21:11:40 +0100  
**Subject:** Request related to ceiling increase  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, djwolking@ucdavis.edu  
**Cc:** predictmgt@usaid.gov

Hi Jonna and David,

Ryland has let me know that OAA is currently preparing a letter back to you with questions regarding the 9/22/17 submission. Based on the understanding that the project is running out of funds, OAA is considering the possibility of a Pre-Authorization option in order keep PREDICT moving forward.

Ryland requested (1) a “drop dead” date for when the previously-obligated regular budget funds will run out and (2) a list of the most important sub award(s) that need funding until the modification is approved. I assume he means sub awards that need to be urgently approved. He did not provide a due date for his request.

Please let me know if you have any questions.

Andrew

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

**Sent:** Thu, 30 Nov 2017 20:18:10 -0800  
**Subject:** Re: GVP PMAC submitted  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** [REDACTED], "AClements@usaid.gov" <AClements@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>  
**Cc:** "sdamrongwatanapokin@usaid.gov" <sdamrongwatanapokin@usaid.gov>, "dSchar@usaid.gov" <dSchar@usaid.gov>

The two side meetings for GVP, closed planning meeting & open GVP introduction, have been approved.  
Glad it's sorted & thanks to [REDACTED]  
Jonna

On Thu, Nov 30, 2017 at 3:47 PM, [REDACTED] > wrote:

Hi everyone,

We have submitted two side-meeting proposals for GVP through the PMAC 2018 online portal at 2.33pm PDT today. I separated the closed and open session into two submissions.

Best wishes,

[REDACTED]

[REDACTED]

Fellow

One Health Institute

School of Veterinary Medicine

University of California, Davis

**From:** Dennis Carroll <dcarroll@usaid.gov>  
**Sent:** Mon, 8 Jan 2018 13:06:22 -0500  
**Subject:** Re: Roadmap Cartoon  
**To:** Jennifer Fluder <jfluder@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, **[REDACTED]**, Nathan Wolfe <nwolfe@metabiota.com>, Eddy Rubin <erubin@metabiota.com>, Peter Daszak <daszak@ecohealthalliance.org>, Brooke Watson <watson@ecohealthalliance.org>  
**Cc:** "Sacchetti, Ben" <Sacchetti.Ben@bcg.com>, "Stroman, Trish" <stroman.trish@bcg.com>  
[GVP.Bangkok.12.28.17.pptx](#)

All, apologies for the delay. Attached is the milestone "cartoon" I referred to during our call. The axis is: month X 3 functional domains: refining our strategy, outreach, building partnership. I have then given 3 examples, one for each domain. These "domains" may not be exactly how we might want to capture the events/progress of the past year - Take look, offer your thoughts and open the dialogue.

d

On Mon, Jan 8, 2018 at 11:15 AM, Jennifer Fluder <[jfluder@usaid.gov](mailto:jfluder@usaid.gov)> wrote:

Hello Dennis,  
I hope that you had a great weekend.

Would you mind sharing the roadmap cartoon you showed Trish and I on Thursday?

Many thanks,  
Jen

--

Jen Fluder | Senior Innovation and Partnership Advisor  
**USAID** | Bureau for Global Health | [Center for Accelerating Innovation and Impact](#)  
[jfluder@usaid.gov](mailto:jfluder@usaid.gov) | [\(571\)551-7115](tel:5715517115)

--

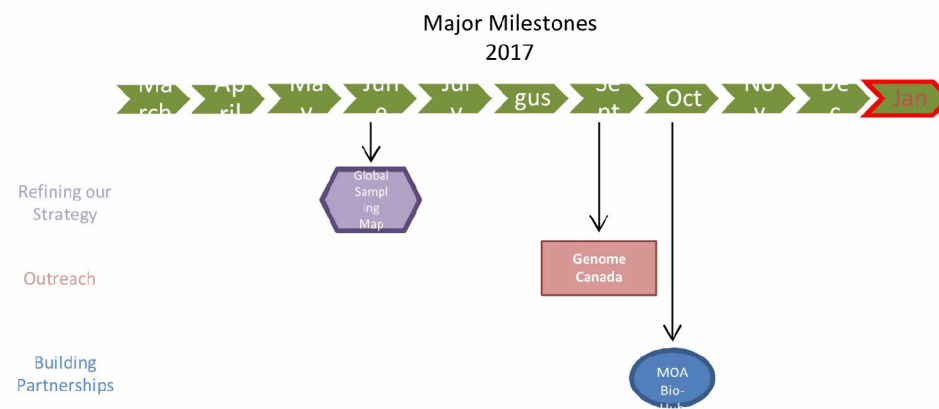
Dr. Dennis Carroll  
Director, Emerging Threats Program  
Bureau for Global Health  
U.S. Agency for International Development

Office: 202-712-5009

Mobile: **[REDACTED]**



## GVP: A Year In Review



**From:** Dennis Carroll <dcarroll@usaid.gov>  
**Sent:** Thu, 18 Jan 2018 12:04:30 -0500  
**Subject:** Re: Slides for "Open Session"  
**To:** "Sacchetti, Ben" <Sacchetti.Ben@bcg.com>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Eddy Rubin <erubin@metabiota.com>, Brooke Watson <watson@ecohealthalliance.org>, **REDACTED**, Jennifer Fluder <jfluder@usaid.gov>, "Stroman, Trish" <Stroman.Trish@bcg.com>

Absolutely. This is to get this discussion going

d

On Thu, Jan 18, 2018 at 11:56 AM, Sacchetti, Ben <[Sacchetti.Ben@bcg.com](mailto:Sacchetti.Ben@bcg.com)> wrote:

Thanks, Dennis. Can we discuss this in today's Core Team meeting? We were anticipating that the revised set of pitch materials (which I will send out in about 15 minutes) could be used for the open session, in place of the CUGH slide deck. If that sounds ok, we will of course make sure to incorporate any of the updates you refer to below.

---

**Ben Sacchetti**  
Principal  
**THE BOSTON CONSULTING GROUP**  
Mobile [+1 3125763838](tel:+13125763838)

---

**From:** Dennis Carroll [mailto:[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)]  
**Sent:** Thursday, January 18, 2018 11:51 AM  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>; Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>; Eddy Rubin <[erubin@metabiota.com](mailto:erubin@metabiota.com)>; Brooke Watson <[watson@ecohealthalliance.org](mailto:watson@ecohealthalliance.org)>; **REDACTED** Sacchetti, Ben <[Sacchetti.Ben@bcg.com](mailto:Sacchetti.Ben@bcg.com)>; Jennifer Fluder <[jfluder@usaid.gov](mailto:jfluder@usaid.gov)>  
**Subject:** Slides for "Open Session"

All, I have gone back to the CUGH slide deck - made some updates and broke it out with an eye to my giving the opening background; Jonna doing the "Proof of Concept"; Peter doing the "Strategic Underpinnings"; and Eddy doing the Impact - which was pretty much the way we did it before

Any way, first cut - look at it - make any modifications, changes you want.

We'll also need to work with BCG to see if they have inputs..

Note: the file is saved in the Power Point 1997-2003 format. Later versions of PP reject the file as corrupted. Go figure

d

--

Dr. Dennis Carroll

Director, Emerging Threats Program

Bureau for Global Health

U.S. Agency for International Development

Office: [202-712-5009](tel:202-712-5009)

Mobile: **REDACTED**

---

The Boston Consulting Group, Inc.

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--

Dr. Dennis Carroll

Director, Emerging Threats Program

Bureau for Global Health

U.S. Agency for International Development

Office: 202-712-5009

Mobile: **REDACTED**

**From:** "Tran, Thu Anh" <TTran@nas.edu>  
**To:** "Shah, Cecilia" <cshah@nas.edu>, "Ogawa, V. Ayano" <VOgawa@nas.edu>, 'Peter Sands' <[REDACTED]>, 'Jacqui Moseley' [REDACTED], "dean.jamison@ucsf.edu" <dean.jamison@ucsf.edu>, "djamison@uw.edu" <djamison@uw.edu>, "twilk@uw.edu" <twilk@uw.edu>, "tgevens@worldbank.org" <tgevens@worldbank.org>, 'Mukesh Chawla' <mchawla@worldbank.org>, "Espinal, Dr. Marcos (WDC)" <espinalm@paho.org>, "Tejada, Ms. Cecilia (WDC)" <tejadace@paho.org>, Peter Daszak <daszak@ecohealthalliance.org>, 'Alison Andre' <andre@ecohealthalliance.org>, "timothy.burgess@usuhs.edu" <timothy.burgess@usuhs.edu>, "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, 'Brooke Genovese' <bgenovese@ucdavis.edu>, "Jennifer.Gardy@bccdc.ca" <Jennifer.Gardy@bccdc.ca>, "Taylor, Jami [GCSOUS]" [REDACTED], "Zarro, Dina [GCSOUS]" <[REDACTED]>, 'Joshua Michaud' <JoshuaM@kff.org>, "cameron@nti.org" <cameron@nti.org>, Thomas Inglesby <tinglesby@jhu.edu>, 'Maria Jasen' <mjasen1@jhu.edu>  
**Subject:** Economics of Microbial Threats Planning Call #1  
**Sent:** Fri, 2 Feb 2018 04:36:05 +0000

Dear Planning Committee Members,

To join our planning call, please use the dial-in information below:

**Toll Free Number:** [REDACTED]  
**International Number:** [REDACTED]

**Participant Passcode:** [REDACTED]

Best,  
Anh





**Subject:** Re: Time Sensitive - another letter to Science about the GVP - Needs your response  
**From:** [REDACTED]  
**Sent:** Fri, 23 Mar 2018 01:17:48 +0800  
**Cc:** Carlos Morel [REDACTED] "Subhash (FAORAP) Morzaria ([REDACTED])", [REDACTED], "Subhash P Morzaria [REDACTED]" Ariel Pablos-Mendez [REDACTED], Oyewale Tomori [REDACTED] "ap39@cumc.columbia.edu" <ap39@cumc.columbia.edu>, "Dennis Carroll (DCarroll@usaid.gov)" <DCarroll@usaid.gov>, Nathan Wolfe <nwolfe@metabiota.com>, Jonna Mazet <jkmazet@ucdavis.edu>, Brooke Watson <watson@ecohealthalliance.org>, Cara Chrisman <cchrisman@usaid.gov>, [REDACTED], Hongying Li <li@ecohealthalliance.org>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>

Peter  
Great job but too much work for you. Agree to be co-authored but comments later.  
Does this mean the previous piece will not be published ? What do these guys want ?  
Best  
George

发自我的 iPhone

在 2018年3月23日, 上午12:37, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> 写道 :

Dear Co-authors,

We've now received a 'letter' about our Science paper (see attachment 'aat5918\_Other\_seq1\_vq.doc'). As you'll see, this is from the same authors as the 'Technical Comment' that we already responded to. I checked with *Science*, and they have asked us to respond, so I drafted a response (attached) which Jonna has helped with. I now need all of you to read the response, then either agree to be an author of that response and send me any edits or comments, or decline to be listed as an author.

Note that we are allowed 600 words maximum and 10 references. We're currently at ~560 words, so please don't add a lot of text!

Also, like the Technical Comment, *Science* editors often will choose not to publish the correspondence, but in this case, if they do it will appear in the journal in print. I've therefore argued back strongly against the points raised by these authors, and made sure to focus the response back onto the GVP (and away from PREDICT), so we get value if it is published.

Please can I ask all of you to respond by email ASAP, and certainly by **5pm Monday March 26<sup>th</sup>**

At that point, I'll insert edits, confirm authorship and send this back to *Science* for them to decide on the merits of the discussion, ahead of the deadline.

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4474  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

[@PeterDaszak](#)  
[@EcoHealthNYC](#)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

<Response to Branco and Garry's letter to Science. Draft.docx>

<aat5918\_Other\_seq1\_v1.docx>

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Katherine Leasure <kaleasure@ucdavis.edu>  
**CC:** PREDICTMGT <predictmgt@usaid.gov>; predict@ucdavis.edu <predict@ucdavis.edu>; Jonna Mazet <jkmazet@ucdavis.edu>; nnkhin@usaid.gov <nnkhin@usaid.gov>; bzinner@usaid.gov <bzinner@usaid.gov>; Daniel Schar (RDMA/OPH) <dSchar@usaid.gov>; Sudarat Damrongwatanapokin (RDMA/OPH) <sDamrongwatanapokin@usaid.gov>  
**Sent:** 4/6/2018 5:35:06 PM  
**Subject:** [predict] Re: Change to Approved ITA - M. Valitutto Trip Extended

Thanks, Katie. Amended travel approved.

Copying mission for visibility of health team.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Apr 5, 2018, at 11:46 AM, Katherine Leasure <[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)> wrote:

Hi Andrew. The Smithsonian has submitted an amendment to the previously approved ITA for Marc Valitutto's travel to Myanmar. They have requested to extend his stay an extra week (through May 12) in order to accommodate a ministry request for a progress meeting to involve multiple in-country stakeholders. The meeting will be a half-day of presentations and discussions; it will be held twice (once in Yangon, and once in Naypyidaw) to relevant stakeholders. I have included a copy of the previously ITA below for reference, highlighting the changes. Please let me know if you have any questions. Thank you!

The Smithsonian Institution would like to request travel approval for Dr. Marc Valitutto to travel from Washington, DC, USA to Yangon, Myanmar for the period of March 27 to April 8, and April 19 to May 12, 2018 May 5, 2018 to participate in high-level meetings, assist with surveillance activities and trainings, meet with members of the partner lab and country coordinator, and attend progress meetings with in-country stakeholders.

**Trip Purpose:** Dr. Valitutto will assist the Country Coordinator during high-level collaborative talks and meetings with the USAID Mission, FAO, and government partners, and evaluate laboratory analysis progress. He will guide and train for flying fox capture, restraint, and sample collection, as well as telemetry collar placement. He will also assist and evaluate the Country Coordinator in training new LBVD field veterinarians during field surveillance, and ensure full PPE protocols are instituted during surveillance activities. Lastly, he will attend progress meetings with in-country stakeholders in Yangon and Naypyidaw. *\*Dr. Valitutto will be in Asia on non-PREDICT funds during the April gap, and will not need two full round trip tickets from the US to complete the work.*  
analysis and identify additional needs for Y4.

**Katherine Leasure**  
HR/Payroll/Financial Assistant  
One Health Institute  
University of California, Davis  
530-752-7526  
530-752-3318 FAX  
[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.  
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[predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit <https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/009201d3ccf5%24426a8f90%24c73faeb0%24%40ucdavis.edu>.



**From:** "K.Syaluha Eddy" [REDACTED]  
**Sent:** Fri, 20 Apr 2018 07:06:36 +0000  
**Subject:** Re: PREDICT Emerging Disease Insights - 2 pagers  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** "zlshi@wh.iov.cn" <zlshi@wh.iov.cn>, "dibesh@cmdn.org" <dibesh@cmdn.org>, Ariful Islam <arif@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>, Hongying Li <li@ecohealthalliance.org>, "ckjohnson@ucdavis.edu" <ckjohnson@ucdavis.edu>, Emily Hagan <hagan@ecohealthalliance.org>, Thomas Hughes <tom.hughes@ecohealthalliance.org>, Allison White <white@ecohealthalliance.org>, Alice Latinne <latinne@ecohealthalliance.org>, [REDACTED] <dmciver@metabiota.com>, "tgoldstein@ucdavis.edu" <tgoldstein@ucdavis.edu>, "dmciver@metabiota.com" <dmciver@metabiota.com>, "ssilithammavong@metabiota.com" <ssilithammavong@metabiota.com>, "dveasna@pasteur-kh.org" <dveasna@pasteur-kh.org>, [REDACTED] "afine@wcs.org" <afine@wcs.org>, "solson@wcs.org" <solson@wcs.org>, "jpi-psp@indo.net.id" <jpi-psp@indo.net.id>, "eshiilegdamba@wcs.org" <eshiilegdamba@wcs.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, [REDACTED], Debapriyo Chakraborty <chakraborty@ecohealthalliance.org>, [REDACTED], [REDACTED] "murrays@si.edu" <murrays@si.edu>, "valituttoM@si.edu" <valituttoM@si.edu>, Patrick Dawson <dawson@ecohealthalliance.org>, [REDACTED] "ghazi@human-link.org" <ghazi@human-link.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, "abubasha@just.edu.jo" <abubasha@just.edu.jo>, "jayukekbong@metabiota.com" <jayukekbong@metabiota.com>, "mmouiche@mosaic.cm" <mmouiche@mosaic.cm>, Anne Laudisoit <laudisoit@ecohealthalliance.org>, "ksaylors@metabiota.com" <ksaylors@metabiota.com>, "pmulembakani@metabiota.com" <pmulembakani@metabiota.com>, "ekambale@gorilladoctors.org" <ekambale@gorilladoctors.org>, "utamoufe@metabiota.com" <utamoufe@metabiota.com>, "kvgilardi@ucdavis.edu" <kvgilardi@ucdavis.edu>, "bssebide@gorilladoctors.org" <bssebide@gorilladoctors.org>, "jnziza@gorilladoctors.org" <jnziza@gorilladoctors.org>, "djwolking@ucdavis.edu" <djwolking@ucdavis.edu>, "zikankubasijali@gmail.com" <zikankubasijali@gmail.com>, [REDACTED] "kalpyjulienoulibaly@pasteur.ci" <kalpyjulienoulibaly@pasteur.ci>, [REDACTED], "trkelly@ucdavis.edu" <trkelly@ucdavis.edu>, "cmonagin@ucdavis.edu" <cmonagin@ucdavis.edu>, "jabelkhiria@ucdavis.edu" <jabelkhiria@ucdavis.edu>, [REDACTED] Jim Desmond <desmond@ecohealthalliance.org>, "daouda.ndiaye@ucad.edu.sn" <daouda.ndiaye@ucad.edu.sn>, [REDACTED] "bhbird@ucdavis.edu" <bhbird@ucdavis.edu>, "ZimmermanD@si.edu" <ZimmermanD@si.edu>, "jkamau@primateresearch.org" <jkamau@primateresearch.org>, [REDACTED] "wasmith@ucdavis.edu" <wasmith@ucdavis.edu>, "jklane@ucdavis.edu" <jklane@ucdavis.edu>, "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, Alison Andre <andre@ecohealthalliance.org>, Aleksei Chmura <chmura@ecohealthalliance.org>, Anna Willoughby <willoughby@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, "Noam Ross" <ross@ecohealthalliance.org>

Thanks for sharing

On Thu, Apr 19, 2018, 19:22 Peter Daszak <daszak@ecohealthalliance.org> wrote:

Dear PREDICT global team leads, regional leads and country coordinators,

I am delighted to share with you the latest Emerging Disease Insights (EDIs) 2-pagers from our PREDICT Modeling and Analytics Team. These are 2-page reports on the analyses that our team is doing to guide surveillance and test out ideas about the risk of emergence of novel PREDICT viruses we discover. These three focus on:

1. Measuring viral discovery: Using the viral accumulation curves from PREDICT 1 to determine how many samples we need to collect and test to discover the majority of viruses in a host species
2. Identifying the next Zika virus: Analyzing all known flaviviruses to assess which ones have the characteristics that could allow them to emerge and spread.
3. Economic case for the GVP: Economic analysis of the Global Virome Project sampling and testing strategy, with an estimate of return-on-investment.

These EDIs are intended to be easily understood, provide an interesting background story based on PREDICT that demonstrates



how we're using state-of-the-art modeling and analytics, and our data from PREDICT, to better understand the risk of disease emergence globally. Please share them widely with your staff, colleagues and partners! They will also be available publicly from [livescience.ecohealthalliance.org](https://livescience.ecohealthalliance.org), as well as on Basecamp, of course.

We are actively working on other Emerging Disease Insights to be completed this and next year, so please send any ideas you may have: Comments are very welcome!

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance

460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor

New York, NY 10001

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[www.ecohealthalliance.org](https://www.ecohealthalliance.org)

[@PeterDaszak](#)

[@EcoHealthNYC](#)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*



how we're using state-of-the-art modeling and analytics, and our data from PREDICT, to better understand the risk of disease emergence globally. Please share them widely with your staff, colleagues and partners! They will also be available publicly from [livescience.ecohealthalliance.org](https://livescience.ecohealthalliance.org), as well as on Basecamp, of course.

We are actively working on other Emerging Disease Insights to be completed this and next year, so please send any ideas you may have: Comments are very welcome!

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance

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[@PeterDaszak](#)

[@EcoHealthNYC](#)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** William B. Karesh <karesh@ecohealthalliance.org>  
**CC:** Jonna Mazet <jkmazet@ucdavis.edu>; djwolking@ucdavis.edu  
<djwolking@ucdavis.edu>; ealeasure@ucdavis.edu  
<ealeasure@ucdavis.edu>; predictmgt@usaid.gov <predictmgt@usaid.gov>; Patrick Dawson  
<dawson@ecohealthalliance.org>  
**Sent:** 4/26/2018 6:59:16 AM  
**Subject:** Re: Potential additional Jordan mission funding

Thanks, Billy.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Apr 26, 2018, at 2:18 PM, William B. Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)> wrote:

Thanks Andrew, I just see that Maysa also sent an email to Dr Ehab to confirm the same.

We too were anticipating the funding and developed a tentative plan that will be consistent with the overall project schedule but add in more capacity building efforts in parts of the country where we were not doing the concurrent sampling and also more human work at camel interfaces (behavior and serology).

BK

Sent from my iPhone

**William B. Karesh, D.V.M**  
*Executive Vice President for Health and Policy*

EcoHealth Alliance  
460 West 34th Street - 17th Floor  
New York, NY 10001 USA

+1.212.380.4463 (direct)  
+1.212.380.4465 (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

***EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.***

On Apr 26, 2018, at 4:46 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi all,

The Jordan mission has indicated its interest in putting an additional \$200,000 into the Predict/Jordan program for the period of October 2018-Sep 2019.

If this happens, the cumulative total from the mission would be \$600,000.

Note: We took the possibility of this last tranche of funding from the Jordan mission into consideration when we calculated the new ceiling for Predict so no worries there.

A question for you: given field activities slowing down and a shift to finishing the testing and analyzing results over the last year of Predict, are there any issues with spending all of this new money?

Andrew

*Andrew P. Clements, Ph.D.*

*Senior Scientific Advisor*

*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*

*U.S. Agency for International Development*

*Mobile phone: 1-571-345-4253*

*Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*



**From:** Elizabeth Leasure <ealeasure@UCDAVIS.EDU>  
**To:** William Karesh <karesh@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, Leilani Franciso <francisco@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>, "Alisa Pereira Emerging Threats Division" <apereira@usaid.gov>, David John Wolking <djwolking@ucdavis.edu>  
**Cc:** Lindsay Parish <lparish@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Karen Saylors <ksaylors@metabiota.com>, "Amanda Andre" <amanda.andre@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, **REDACTED**  
**Subject:** PREDICT SMT Agenda for May 1, 2018 (10 am PT/1 pm ET)  
**Sent:** Mon, 30 Apr 2018 15:50:49 +0000  
[PREDICT MT Call \(5.1.18\).docx](#)

Hi everyone. Please find attached and below the agenda for Tuesday's SMT call. Happy Monday!

### **PREDICT Management Call Agenda**

Tuesday, May 1, 2018

10:00-11:00AM PST/1:00-2:00pm EST

# **REDACTED**, Access code **REDACTED**

International Dial-in number: **REDACTED** (toll charges apply)

### **USAID Updates**

#### **1. Administrative items**

- Update on OAA actions
- US appropriations visit update
- M&E meeting in DC (May 14-15)
- OIE meeting in Paris (May 18)
- West Africa travel updates
- DC briefing scheduling

#### **2. Semi-annual meeting recap**

#### **3. Bat communications book and community engagement**

#### **4. USAID brown bag series**

#### **5. Mission communications roundup (as needed)**

#### **6. EPT partner collaboration/coordination updates (Billy)**

#### **7. Publication, media, and conference updates**

- iCOMOS, University of Minnesota (April 29-May 2, 2018)
- NIH Changing Relevance of Material Transfer Agreements for Infectious Diseases, Georgetown (May 3-4, 2018)
- AVMA meeting in Denver (July 13, 2018)
- "[Outbreak: Epidemics in a Connected World](#)" exhibit at NMNH (May 18, 2018)
- One Health Congress Saskatoon (June 22-25, 2018)
- International Conference on Emerging Infectious Diseases (ICEID) in Atlanta (August 26-29, 2018)
- International Meeting on Emerging Diseases and Surveillance (IMED) 2018 in Vienna, Austria (November 9-12, 2018)
- International Symposium of Veterinary Epidemiology and Economics (ISVEE) Thailand (November 12-16, 2018).

*Elizabeth Leasure*  
*Financial Operations Manager*

UCDUSR0009677

*One Health Institute*

**REDACTED** *(cell)*

*530-754-9034 (office)*

*Skype: ealeasure*

## **PREDICT Management Call Agenda**

Tuesday, May 1, 2018


10:00-11:00AM PST/1:00-2:00pm EST

#**REDACTED** Access code **REDACTED**

International Dial-in number: **REDACTED** (toll charges apply)

### **USAID Updates**

- 1. Administrative items**
  - Update on OAA actions
  - US appropriations visit update
  - M&E meeting in DC (May 14-15)
  - OIE meeting in Paris (May 18)
  - West Africa travel updates
  - DC briefing scheduling
- 2. Semi-annual meeting recap**
- 3. Bat communications book and community engagement**
- 4. USAID brown bag series**
- 5. Mission communications roundup (as needed)**
- 6. EPT partner collaboration/coordination updates (Billy)**
- 7. Publication, media, and conference updates**
  - iCOMOS, University of Minnesota (April 29-May 2, 2018)
  - NIH Changing Relevance of Material Transfer Agreements for Infectious Diseases, Georgetown (May 3-4, 2018)
  - AVMA meeting in Denver (July 13, 2018)
  - [“Outbreak: Epidemics in a Connected World”](#) exhibit at NMNH (May 18, 2018)
  - One Health Congress Saskatoon (June 22-25, 2018)
  - International Conference on Emerging Infectious Diseases (ICEID) in Atlanta (August 26–29, 2018)
  - International Meeting on Emerging Diseases and Surveillance (IMED) 2018 in Vienna, Austria (November 9-12, 2018)
  - International Symposium of Veterinary Epidemiology and Economics (ISVEE) Thailand (November 12-16, 2018).

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** , "Chrisman, Cara (GH/HIDN/ID:AAAS)" <cchrisman@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, "nwolfe@metabiota.com" <nwolfe@metabiota.com>, "Jonna Mazet" <jkmazet@ucdavis.edu>  
**Subject:** RE: GVP call June/July  
**Sent:** Thu, 21 Jun 2018 01:00:56 +0000

Hi all,

With Brooke having now left, as we go through the hiring process for a replacement, I'm cc'ing Alison Andre who will keep me in the loop for GVP calls etc.

I can't to the call Tomorrow – I'm at the Pasteur Institute giving a talk at a Symposium on EIDs to mark the 1918 Flu centenary. I'll be doing a diplomatic but strong defense of our patch because Eddie Holmes talks straight after me on "Why predicting disease emergence is a fallacy". I'll make sure I take the high road, and I'm sure we'll all be best of friends over dinner and wine later on...

I can do the 28<sup>th</sup> and July 19<sup>th</sup>.

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4474  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)  
[@PeterDaszak](#)  
[@EcoHealthNYC](#)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

---

**From:**   
**Sent:** Wednesday, June 20, 2018 7:14 PM  
**To:** Chrisman, Cara (GH/HIDN/ID:AAAS); Dennis Carroll; Peter Daszak; Eddy Rubin; nwolfe@metabiota.com; Jonna Mazet  
**Subject:** GVP call June/July

Hi everyone,

This is a heads up about our upcoming GVP calls:

- June 21 (tomorrow) – I will not be able to join (on a flight to Saskatoon). Jonna will be calling in, but will boarding a plane during the call.
- June 28 – Dennis and I will be in Japan for outreach activities, and will not be able to join.
- July 19 – Jonna will not be able to join.

Thanks,





**Subject:** Re: GVP call June/July  
**From:** Eddy Rubin <erubin@metabiota.com>  
**Sent:** Wed, 20 Jun 2018 22:40:36 -0600  
**Cc:** **REDACTED**, "Chrisman, Cara (GH/HIDN/ID:AAAS)" <cchrisman@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, "nwolfe@metabiota.com" <nwolfe@metabiota.com>, Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>

Hi  
I can't do tomorrow June 21st but can do June 28th and July 19th.  
Eddy

On Jun 20, 2018, at 7:00 PM, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

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Thanks,



**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Thu, 19 Jul 2018 15:35:42 +0200  
**Subject:** Name of new virus  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>

Can you verify that the local researchers and their home organizations and affected communities are all okay with naming the new virus after the district? It's a good descriptor, but people may have concerns about their district being stigmatized.

Thanks!

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: **REDACTED**  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

**From:** William B. Karesh <karesh@ecohealthalliance.org>  
**To:** PREDICT-outbreak <predict-outbreak@ucdavis.edu>  
**Sent:** 8/2/2018 12:29:51 PM  
**Subject:** [predict] [predict-outbreak] Ebola DRC

Here's latest message from a contact in Kivu:

46 cases notified (Ituri and North Kivu) 29 deaths including health care workers, at least one doctor and another that is ill.

Several health zones in North Kivu: MABALAKO with Mangina the epi centre, other BENI, OICHA, LUBERO, MUSIENENE, BUTEMBO, KALUNGUTA

\*Hypothesis from local people in Mangina\* A dead cat eaten by twins in MASIMBEMBE neighbourhood in May 2018. These were the first to be sick. Then it spread in Masibembe with 18 deaths

**William B. Karesh, D.V.M**

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**To:** Andrew Clements <aclements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>, Cara Chrisman <cchrisman@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Murray, Suzan" <MurrayS@si.edu>, "Valitutto, Marc" <ValituttoM@si.edu>  
**Subject:** Re: Smithsonian presentation  
**Sent:** Fri, 10 Aug 2018 17:39:29 +0000

Hi Andrew & Alisa,

Chiming in here on Jonna's behalf: we're not sure about our ability to reschedule and secure a space in the castle for the meeting. The week of September 10<sup>th</sup> was also a good week for the rest of EB, so not sure what their availability becomes if we change the date.

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**Date:** Friday, August 10, 2018 at 10:31 AM  
**To:** Brooke Genovese <bgenovese@ucdavis.edu>  
**Subject:** Fwd: Smithsonian presentation

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**Date:** Fri, Aug 10, 2018 at 8:48 AM  
**Subject:** Re: Smithsonian presentation  
**To:** "William B. Karesh" <karesh@ecohealthalliance.org>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, "djwolking@ucdavis.edu" <djwolking@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "MurrayS@si.edu" <MurrayS@si.edu>, "cchrisman@usaid.gov" <cchrisman@usaid.gov>, Alisa Pereira <apereira@usaid.gov>

Thanks, Billy.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
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U.S. Agency for International Development  
Mobile phone: <REDACTED>  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Aug 10, 2018, at 5:05 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

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Sent from my iPhone

BK

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Can you remind me if there was a specific reason you/we selected this date? Would a future date be possible (assuming there is availability at the castle)?

Thanks!

Andrew

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Mobile phone: **REDACTED**  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*



**From:** "Valitutto, Marc" <ValituttoM@si.edu>  
**To:** Andrew Clements <aclements@usaid.gov>  
**Cc:** Brooke Genovese <bgenovese@ucdavis.edu>, Alisa Pereira <apereira@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>, Cara Chrisman <cchrisman@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Murray, Suzan" <MurrayS@si.edu>  
**Subject:** Re: Smithsonian presentation  
**Sent:** Fri, 10 Aug 2018 20:13:56 +0000

Ok. Will let everyone know when I find out more.  
Have a good weekend.

--

Marc Valitutto, VMD  
(917) 543-6323

Sent from my iPhone

On Aug 10, 2018, at 3:59 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

...but investigate later options as well.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Aug 10, 2018, at 9:57 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Thanks, Marc.  
For now, let's keep operating on the assumption that we'll stay with the Sept date.

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Thanks, Billy.

*Andrew P. Clements, Ph.D.*

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**From:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Sent:** Mon, 13 Aug 2018 08:55:47 -0700  
**Subject:** Re: Smithsonian presentation  
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Thanks, Marc. Those two days have similar problems for us.  
How does early December look?

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FYI, both Sep 11<sup>th</sup> and Sep 12<sup>th</sup> are available at the Smithsonian Castle Library which seats 40-50 comfortably. We will make vidyo available for outside viewing.

Let me know if we ought to reserve the space at your conveniences.

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[+1.212.380.4465](tel:+12123804465) (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

***EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.***

On Aug 10, 2018, at 10:29 AM, Andrew Clements  
<[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi all,

Turns out Dennis, Alisa, and I will not be available for this presentation on the current date.

Can you remind me if there was a specific reason you/we selected this date? Would a future date be possible (assuming there is availability at the castle)?

Thanks!

Andrew

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*



**From:** Hannah R Chale <hrchale@ucdavis.edu>  
**To:** "luciano@ecohealthalliance.org" <luciano@ecohealthalliance.org>, "turner@ecohealthalliance.org" <turner@ecohealthalliance.org>, "sullivan@ecohealthalliance.org" <sullivan@ecohealthalliance.org>, "musser@ecohealthalliance.org" <musser@ecohealthalliance.org>, "daszak@ecohealthalliance.org" <daszak@ecohealthalliance.org>, "NguyenR@si.edu" <NguyenR@si.edu>, "KejelaE@si.edu" <KejelaE@si.edu>, "WalkerAS@si.edu" <WalkerAS@si.edu>, "ZimmermanD@si.edu" <ZimmermanD@si.edu>, "MurrayS@si.edu" <MurrayS@si.edu>, "bedison@metabiota.com" <bedison@metabiota.com>, "mnguyen@metabiota.com" <mnguyen@metabiota.com>, "ali@metabiota.com" <ali@metabiota.com>, "erubin@metabiota.com" <erubin@metabiota.com>, "ksaylors@metabiota.com" <ksaylors@metabiota.com>, "cchurchill@wcs.org" <cchurchill@wcs.org>, "afine@wcs.org" <afine@wcs.org>, "jbui@wcs.org" <jbui@wcs.org>, "ar3049@cumc.columbia.edu" <ar3049@cumc.columbia.edu>, "sja2127@columbia.edu" <sja2127@columbia.edu>, Kirsten Gilardi <kvgilardi@ucdavis.edu>, "cranfield.mike@gmail.com" <cranfield.mike@gmail.com>, "draycraft@sbcglobal.net" <draycraft@sbcglobal.net>, [REDACTED], David John Wolking <djwolking@ucdavis.edu>, Jennifer K Lane <jklane@ucdavis.edu>, Kevin N Gonzalez <kngonzalez@ucdavis.edu>, "gmwangoka@ihi.or.tz" <gmwangoka@ihi.or.tz>, "cringo@ucdavis.edu" <cringo@ucdavis.edu>, "hmlege@ihi.or.tz" <hmlege@ihi.or.tz>, "gdaufresne@pasteur-kh.org" <gdaufresne@pasteur-kh.org>, "dveasna@pasteur-kh.org" <dveasna@pasteur-kh.org>, "ew635@law.georgetown.edu" <ew635@law.georgetown.edu>, [REDACTED] Tracey Goldstein <tgoldstein@ucdavis.edu>, "sanumaiya@cmdn.org" <sanumaiya@cmdn.org>, "dibesh@cmdn.org" <dibesh@cmdn.org>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Megan M Doyle <mmdoyle@ucdavis.edu>, [REDACTED], Woutrina A Smith <wasmith@ucdavis.edu>, [REDACTED], "alioune.fall@isra.sn" <alioune.fall@isra.sn>, Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>, Jaber Amine Belkhiria <jabelkhiria@ucdavis.edu>, [REDACTED], "directiongenerale@eismv.org" <directiongenerale@eismv.org>, [REDACTED], [REDACTED] Tsegaw Fentie [REDACTED], "WAmopofo@noguchi.ug.edu.gh" <WAmopofo@noguchi.ug.edu.gh>, "KKoram@noguchi.ug.edu.gh" <KKoram@noguchi.ug.edu.gh>, "Nakuffo@noguchi.ug.edu.gh" <Nakuffo@noguchi.ug.edu.gh>, [REDACTED], "mercy.mwaura@ymail.com" <mercy.mwaura@ymail.com>, Brian H Bird <bhbird@ucdavis.edu>, Brooke Genovese <bgenovese@ucdavis.edu>, "hlarman1@jhmi.edu" <hlarman1@jhmi.edu>, predict Sympa List <predict@ucdavis.edu>  
**Sent:** Wed, 17 Oct 2018 20:55:06 +0000  
**Subject:** [predict] Fake SAM.gov Help number

Hello everyone,

No action needed - This is for your information, awareness, and to inform your own subawardees.

We have been informed by one of our partners that there are some scam, fake, SAM.gov helpline phone numbers charging money for SAM.gov registration. We have reported the fraudulent phone numbers to the appropriate federal agencies and they are aware of this issue.

These are not real. You should **never** pay to register or re-register for SAM.gov

Part of the confusion is because the actual SAM.gov helpline phone number is not easily accessible because their website has had issues with being hacked.

Below are the instructions for accessing the correct SAM.gov helpline phone number.

1. Go to this link - [https://sam.gov/portal/SAM/?portal:componentId=57532328-784f-4065-bceb-801ac648ccbba&interactionstate=JBPNs\\_rO0ABXc0ABBfanNmQnJpZGdlVmllld0lkAAAAAQATL2pzZi9uYXZpZ2F0aW9uLmpzcAAHX19FT0ZfXw\\*\\*&portal:type=action##11](https://sam.gov/portal/SAM/?portal:componentId=57532328-784f-4065-bceb-801ac648ccbba&interactionstate=JBPNs_rO0ABXc0ABBfanNmQnJpZGdlVmllld0lkAAAAAQATL2pzZi9uYXZpZ2F0aW9uLmpzcAAHX19FT0ZfXw**&portal:type=action##11)
2. Search for the topic related to your question
3. Select the question most relevant to your question/topic
4. When you select that question – a new “Federal Service Desk” tab will open – there you can live chat with someone and they can provide the number for you to call

I am sorry this process is so complicated right now. Please do not hesitate to contact us if you encounter any issues, have any questions, or if anything else comes up.

Thank you all for your patience,

**Hannah Chale, CRA**

Research Administrator

One Health Institute

University of California, Davis

**Cell – 530-219-9987**

<http://www.vetmed.ucdavis.edu/ohi/>



**From:** [REDACTED]  
**To:** Thanat Chookajorn <thanat.cho@mahidol.edu>, Dennis Carroll <dcarroll@usaid.gov>, "cchrisman@usaid.gov" <cchrisman@usaid.gov>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Subject:** RE: Meeting in Bali  
**Sent:** Mon, 29 Oct 2018 18:09:01 +0000

Dear Thanat,

That is great. I have copied Cara to make sure Dennis sees this message.  
Cara, please see Thanat's message below.

Thanks,  
Eri

[REDACTED]

Fellow  
One Health Institute  
School of Veterinary Medicine  
University of California, Davis

**From:** Thanat Chookajorn [mailto:thanat.cho@mahidol.edu]  
**Sent:** Sunday, October 28, 2018 5:54 PM  
**To:** Dennis Carroll <dcarroll@usaid.gov>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>; [REDACTED]  
**Subject:** Meeting in Bali

Dear Dennis,

I would like to thank you and the GVP team again for a wonderful meeting in Thailand. It has the positive impact for both GVP and the Thai research community.

Dean Pratap has the understanding that he will have an opportunity to meet you in Bali. I would like to confirm it with you first. If that is the case, I will prepare a summary for him in advance. Pratap's deanship will end in the middle of 2019. He wants to push the field operation network at TropMed, and a budget either from TropMed or from Mahidol could be allocated for the field work related to GVP.

Have a safe trip and look forward to meeting you in the near future.

Best wishes,  
Thanat



**From:** Thanat Chookajorn <thanat.cho@mahidol.edu>  
**Sent:** Tue, 30 Oct 2018 07:27:34 +0700  
**Subject:** Re: Meeting in Bali  
**To:** Cara Chrisman <cchrisman@usaid.gov>  
**Cc:** **REDACTED** >, Dennis Carroll <dcarroll@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>

Dear Cara,  
Thank you very much. It was wonderful to meet you and your team as well.

We look forward to meeting Dennis again in the near future. Considering how things are going very well with the GVP cooperation, I would like to suggest that it might be a good idea to arrange a meeting with the President of Mahidol University. We can discuss this possibility when we know more about Dennis' plan.

Best wishes,  
Thanat

On Tue, Oct 30, 2018 at 3:18 AM Cara Chrisman <[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)> wrote:

Dear Thanat & **REDACTED**,

Thanat, thank you for the kind words, it was such a wonderful opportunity to hear more about all the impressive capacity already pre-existing in Thailand to accomplish this work!

I can further confirm with Dennis tomorrow (in DC), but my understanding is that he will no longer be attending the meeting in Bali. However, I do believe that he will be in the region again soon and there may be another opportunity to have further conversation with Dean Pratap.

Best,  
Cara

Cara J. Chrisman, PhD  
Senior Infectious Diseases Technical Advisor  
U.S. Agency for International Development (USAID) Contractor  
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division  
2100 Crystal Drive, CP3-8091A, Arlington, VA 22202  
Desk: (571) 551-7413

Cell: **REDACTED**  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

*GHSI-III - Social Solutions International, Inc. prime contractor*

On Mon, Oct 29, 2018 at 2:09 PM **REDACTED** > wrote:

Dear Thanat,

That is great. I have copied Cara to make sure Dennis sees this message.

Cara, please see Thanat's message below.

Thanks,

**REDACTED**

UCDUSR0009697

**REDACTED**

Fellow

One Health Institute

School of Veterinary Medicine

University of California, Davis

**From:** Thanat Chookajorn [mailto:[thanat.cho@mahidol.edu](mailto:thanat.cho@mahidol.edu)]  
**Sent:** Sunday, October 28, 2018 5:54 PM  
**To:** Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>  
**Cc:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>; Eri Togami <[etogami@ucdavis.edu](mailto:etogami@ucdavis.edu)>  
**Subject:** Meeting in Bali

Dear Dennis,

I would like to thank you and the GVP team again for a wonderful meeting in Thailand. It has the positive impact for both GVP and the Thai research community.

Dean Pratap has the understanding that he will have an opportunity to meet you in Bali. I would like to confirm it with you first. If that is the case, I will prepare a summary for him in advance. Pratap's deanship will end in the middle of 2019. He wants to push the field operation network at TropMed, and a budget either from TropMed or from Mahidol could be allocated for the field work related to GVP.

Have a safe trip and look forward to meeting you in the near future.

Best wishes,

Thanat

**From:** REDACTED  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>  
**Subject:** RE: Just to let you know that I filled in the survey on One Health Workforce  
**Sent:** Mon, 3 Dec 2018 17:51:37 +0000

Hi Peter,

Thank you very much for taking the survey!!

Best,

REDACTED

**From:** Jonna Mazet [mailto:jkmazet@ucdavis.edu]  
**Sent:** Saturday, December 01, 2018 9:53 AM  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** REDACTED  
**Subject:** Re: Just to let you know that I filled in the survey on One Health Workforce

Thanks!

J

On Fri, Nov 30, 2018 at 6:00 PM Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:  
Hi REDACTED Jonna - Just completed it – great survey – well done!

I was surprised that I didn't know as much as I should about the field....

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
[460 West 34<sup>th</sup> Street](#) – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4474  
Website: [www.ecohealthalliance.org](http://www.ecohealthalliance.org)  
Twitter: [@PeterDaszak](https://twitter.com/PeterDaszak)

*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

**Sent:** Mon, 17 Dec 2018 08:47:23 -0800  
**Subject:** Re: Comment from Liberia mission  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Andrew Clements <aclements@usaid.gov>  
**Cc:** Cara Chrisman <cchrisman@usaid.gov>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>

Hi Andrew,  
Jim has been working with the government a bunch, but we'd like him to give us the details on involvement in this specific plan.  
He's en route to New York at the moment, so we can get back to you tomorrow with info on A&B. I would say high likelihood on C.  
Happy Holidays,  
Jonna

On Mon, Dec 17, 2018 at 8:35 AM Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi Jonna,

From the Mission: *"Currently, we are working with partners to develop Liberia's first national plan for animal health surveillance. A key element of that plan includes the capability to early detect, in situ, priority zoonotic viruses, e.g. yellow fever, lassa fever, ebola\* et al."*

A) Is Predict aware of the plan being developed?

B) Is Predict contributing to its development?

C) How likely is Liberia to be on the list of Predict extension countries? 100%, high, medium, low, zero.

Thanks!

Andrew

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

**From:** **REDACTED**  
**To:** William Karesh <karesh@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, Leilani Franciso <francisco@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Elizabeth Leasure <ealeasure@UCDAVIS.EDU>, David John Wolking <djwolking@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>  
**Cc:** Lindsay Parish <lparish@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Karen Saylor <ksaylor@metabiota.com>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, predict Sympa List <predict@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>  
**Subject:** [Cancelled] PREDICT SMT Dec 25  
**Sent:** Wed, 19 Dec 2018 18:02:34 +0000

Hi PREDICT MT,

Your next PREDICT MT meeting originally scheduled on December 25 has been canceled. Your next meeting will be held on January 8, 2019.

Happy holidays,





**Sent:** Wed, 09 Jan 2019 21:25:41 +0000  
**Subject:** GVP call Tomorrow  
**From:** cchrisman@usaid.gov  
**To:** jkmazet@ucdavis.edu, **REDACTED** erubin@metabiota.com, cchrisman@usaid.gov, daszak@ecohealthalliance.org, dcarroll@usaid.gov, nwolfe@metabiota.com

Hi All,

Happy new year! I hope that you all had a wonderful holiday season and a good start to 2019!

We're looking forward to speaking tomorrow during our regularly scheduled call. Please see below for the current agenda. Feel free to send any additional items in advance or we can add them during the call.

Best,  
Cara

- Agenda:
- 1) Board of Directors
  - 2) 501c3
  - 3) China
  - 4) Newsletter (post-Bangkok)
  - 5) AOB

Additional item: Netflix 0.0 Documentary

### GVP call

**When** Thu Jan 10, 2019 1pm – 2pm Eastern Time - New York

**Where** call in line **REDACTED** passcode **REDACTED** ([map](#))

**Video call** [https://hangouts.google.com/hangouts/\\_/ecohealthalliance.org/gvp-call](https://hangouts.google.com/hangouts/_/ecohealthalliance.org/gvp-call)

**Who**

- watson@ecohealthalliance.org - organizer
- cchrisman@usaid.gov
- **REDACTED**
- jkmazet@ucdavis.edu
- nwolfe@metabiota.com
- erubin@metabiota.com
- dcarroll@usaid.gov
- Peter Daszak

**From:** Elizabeth Leasure <ealeasure@UCDAVIS.EDU>  
**To:** "ssihombing@usaid.gov" <ssihombing@usaid.gov>  
**Cc:** Andrew Clements <aclements@usaid.gov>, "predictmgt@usaid.gov" <predictmgt@usaid.gov>, predict Sympa List <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "tmeinke@usaid.gov" <tmeinke@usaid.gov>, "aangelina@usaid.gov" <aangelina@usaid.gov>, Evelyn Luciano <luciano@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Alice Latinne <latinne@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, "Kevin J. Olival" <olival@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>  
**Subject:** BAST for PREDICT  
**Sent:** Mon, 11 Feb 2019 17:41:52 +0000  
[BAST PREDICT-2 Y1-Y5Q1 2.11.19.docx](#)

Hi Sylvia. Please find attached the requested BAST form, completed to the best of our ability for the PREDICT project. If you have any questions or requiring anything else, please let me know.

Thanks,  
Liz

*Elizabeth Leasure  
Financial Operations Manager - PREDICT  
One Health Institute  
University of California, Davis*

**REDACTED**  
530-754-9034 (office)  
Skype: ealeasure

## **BAST/HANDOVER CERTIFICATE FOR USAID PROJECT PREDICT-2**

Number: **XXX/USAID-INA/BAST-[Service]/[Office]/YYYY**

**<PRO will provide the Number>**

This certificate documents the handover of certain assistance from the United States Agency for International Development (USAID) to the Government of Indonesia under the terms of USAID Assistance Agreement Number **AID-OAA-A-14-00101**. Specifically, this certificate describes assistance provided under the project entitled **PREDICT-2 from 10.01.2014 to 12.31.2018** described in detail in Attachment 1 and Attachment 2 [hereinafter "the provided assistance"]. Signatories to this certificate, collectively described as "the Parties," are as follows:

1. Name : **Jonathan Ross**  
Position : **Director, Office of Health, USAID/Indonesia**

In this case acting on behalf of and for the United States Agency for International Development (USAID)/Indonesia as Grantor, hereinafter called the First Party.

2. Name : **dr. Wiendra Waworuntu, M.Kes**  
Position : **Director, Prevention and Communicable Disease Control,  
DG of Prevention and Disease Control, Ministry of Health**

In this case acting on behalf of the **<GOI Ministry/Agency>**, the Recipient Agency (Grantee), hereinafter called the Second Party.

The Parties acknowledge that the provided assistance is classified by the Government of Indonesia as a direct grant for purposes of relevant Government of Indonesia regulations. Furthermore, the Parties acknowledge that the provided assistance took the form of technical assistance and capacity development services, and that this assistance remained off-budget and off-treasury from the Government of Indonesia's perspective. The provided assistance was furnished in partial fulfillment of commitments under Assistance Agreement Number **AID-OAA-A-14-00101**, executed by the First Party, whereas the Second Party was the recipient of the off-budget, off-treasury assistance described in this certificate. Through this certificate, the Parties acknowledge the handover of the provided assistance to the Second Party.

The purpose of the provided assistance, in the form of technical assistance was:

- 1) **to detect, track and predict the emergence of new zoonotic pathogens from wildlife that could pose an threat to human health;**
- 2) **to build in-country capacity for priority viral surveillance and for identifying and monitoring zoonotic pathogens or those that can be shared between animals and people.**

The Second Party will continue to manage and benefit from the provided assistance -- independent of the First Party's involvement--after signing this Handover Certificate.

The First Party's expenditure to furnish the provided assistance during the period under review totaled **USD 5,036,486** equal to **IDR 69,891,316,222** as estimated by the First Party based on the Bank Indonesia exchange rate on **02.06.2019**.

The First Party is fully responsible, pursuant to its own policies and regulations, for all procurements and disbursements of the grant, including but not limited to any payments and expenses related to the activities and services procured as part of the provided assistance. The Parties acknowledge that all payments, transactions, and procurements related to the provided assistance were accomplished by the First Party, without the direct involvement of the Second Party. The First Party further acknowledges that the Second Party is not accountable for any documents, proof of transaction, or verification, and expenses related to the provided assistance, and exonerates them for any legal and financial liability related to the provided assistance. The First Party is solely responsible for ensuring the accuracy of expenses that were paid by the First Party.

All documents and evidence of the First Party's expenditure are stored and accounted for by the First Party in a manner consistent with its own regulations and policies.

Pursuant to the policies and regulations of the Government of Indonesia, the Second Party accepts the handover of the provided assistance from the First Party in the form of services/goods as described in this Handover Certificate.

Attachments 1 and 2 to this Handover Certificate, integrated into this document by reference, provide a summary of project activities furnished as part of the provided assistance.

**First Party**  
Grantor/Offeror

**Second Party**  
Grantee/Recipient Agency

**<Name Technical Office Director>**  
Date:

**<Name Government Official>**  
Date:



## **Attachment 1: Summary Report of Project Activities**

Hand-Over Certificate Number: **XXX/USAID-INA/BAST-[Good]/[Office]/YYYY**

### *Program Goal:*

- Support the government of Indonesia in the surveillance of viral families with zoonotic disease potential in high-risk wildlife, domestic animals, and human populations.
- Support GoI to detect and rapidly respond to the spillover of novel infectious pathogens from wildlife to humans, and prevent such spillover events.
- Investigate the human behaviors and practices as well as ecological and biological factors driving disease emergence, transmission, and spread (a “One Health” approach).
- The program is also supporting networking, collaboration, and diagnostic capacity development amongst the national laboratories of human and animal health in Indonesia through training on and use of PREDICT laboratory protocols and technology.

### *The following milestones highlight PREDICT-2 results to date in Indonesia:*

- Sampled 2,545 wild animals (bats and rodents) and 673 humans and screened associated samples for priority viral families. Results pending final interpretation and approval for release by the government of Indonesia.
- Training on sample collection for representatives from the Ministries of Forestry and Agriculture, universities, and government research and development agencies.
- Training for Disease Investigation Center Directorate General of Livestock and Animal Health Service Ministry of Agricultural as the Government National Laboratories on Animal health for transferring knowledge and technology of PREDICT Laboratory Protocol
- Supported the research of Post-Degree students using PREDICT Laboratory Protocol
- Collaborated with South East Asia One Health University Networks (SEAOHUN) in Fellowship Award
- Trained students, researchers and laboratory staffs from other laboratories in Indonesia on One Health approaches, sampling protocols, and hands-on training in biosecurity as well as sampling on biological specimens
- Research collaboration with various hospitals and universities in Indonesia (Kalimantan, Bali, North Sulawesi, and West Java) in regard to PREDICT activities.
- Conducted human syndromic and community surveillance studies are in North Sulawesi area and in concurrent with PREDICT wildlife activity
- Capacity building for PREDICT’s local partner (Noongan Hospital and Kawangkoan Health Center) in conducting health research with the involvement of human subject through training on ethics, biosafety, and good laboratory practices.



- Capacity building in biosafety, basic emerging virus detection, and basic bioinformatics analysis for participants from BBTCL (Balai Besar Teknik Kesehatan Lingkungan dan Pengendalian Penyakit), BTKL (Balai Besar Teknik Kesehatan Lingkungan dan Pengendalian Penyakit), BLK (Balai Laboratorium Kesehatan), universities, and Sub Directorate of Zoonosis
- Capacity building in biosafety and biosecurity for participants from 27 Puskesmas in Minahasa and Minahasa Tenggara area. The training was beneficial since most of the Health Center will soon undergo the accreditation program as required by the Ministry of Health.

**Attachment 2: Matrix of Services Provided under <Insert Project Name>**Hand-Over Certificate Number: **XXX/USAID-INA/BAST-[Service]/[Office]/YYYY**

| Objectives   | Strategy and Activities   | Expenses  |                |
|--------------|---|-----------|----------------|
|              |   | USD       | IDR            |
| Objective 1: |   |           |                |
|              | Detect viral sharing and identify new pathogens by conducting human and animal biological sampling and testing collected samples for priority viral families. | 3,135,845 | 43,516,121,065 |
| Objective 2: |   |           |                |
|              | Establish in-country surveillance and diagnostic capacity through training and technology transfer.   | 1,900,641 | 26,375,195,157 |
| Objective 3: |   |           |                |
|              | < Insert brief component of activities><br>•<br>•<br>•  | xxxx      | xxxx           |
| Objective 4: |   |           |                |
|              | Insert brief component of activities><br>•<br>•<br>•  | xxxx      | xxxx           |
| TOTAL        |   | 5,036,486 | 69,891,316,222 |

**From:** Woutrina A Smith <wasmith@ucdavis.edu>  
**To:** Matthew Blake <mblake@ucdavis.edu>  
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**Subject:** OHW-NG updates and calls

**Sent:** Mon, 18 Feb 2019 03:18:37 +0000

[ToC-OHW-2-16-19-ws.pptx](#)

**REDACTED** [CoreCompetenciesinOneHealthEducation NAM 2018.pdf](#)

Hi OHW-NG team,

**1. Call scheduling** - For this coming week, here are the usual zoom call days/times along with the same zoom call info.

Zoom Meeting link: **REDACTED**

Or dial by your location:

+1 669 900 6833 US (San Jose)

+1 646 876 9923 US (New York)

Meeting ID: **REDACTED**

**Wednesday, February 20, 8-9am PST = 11am-12pm EST** - Overview updates and Obj 1 & 2 focus for discussion.

**Thursday, February 21, 9-10am PST = 12-1pm EST** - Overview updates and Objective 3 focus for discussion.

## **2. Proposal planning:**

- Timeline - given the Monday holiday, we expect to be sending out proposal prep docs to your groups this Tuesday, Feb 19. The schedule that Matt and Liz shared last week for the business proposal component is provided here again.

**February 19<sup>th</sup> COB:** UCD will send instructions, templates, and forms to partners

**March 1<sup>st</sup> COB:** Drafts of subrecipient SOWs/Budgets/Justifications submitted to UCD for review

**March 4<sup>th</sup>-12<sup>th</sup>:** UCD review of draft subrecipient submissions & discussions with partners to finalize required documents

**March 12<sup>th</sup> COB:** All subrecipient SOWs/Budgets/Justifications must be ready for partners to submit to their respective organizations for review/approval

**March 20<sup>th</sup>:** All fully-approved subrecipient packages must be received at UCD

**March 21<sup>st</sup>-29<sup>th</sup>:** UC Davis finalizes cost application

**March 29<sup>th</sup> COB:** UC Davis submits full proposal to Sponsored Programs Office (SPO) review/approval

**April 1<sup>st</sup>-8<sup>th</sup>:** SPO conducts their review/approves

**April 8<sup>th</sup> (or sooner):** UC Davis submits to USAID by 10 am PT/1 pm ET

- Theory of Change task - it's not pretty yet, but I am sharing my first go at a Theory of Change figure to provide folks something to look over and give input on by email or on the calls this week. We have time to play with the figure format, but I thought it would be helpful to give you something that shows where we are starting out, with the three OHW-NG Objectives, and where we want to end up, as the goal of the OHW-NG efforts, along with what I envision being some of the mainstay outputs, outcomes, and impacts that connect them. There are of course lots of layers within any box or bullet in this ToC figure, but we can use the tech narrative text and other figures to touch on those. For those wanting to view ToC format examples, check out this link, and p.47-48 have some interesting format ideas that we can consider for how best to convey our intent.

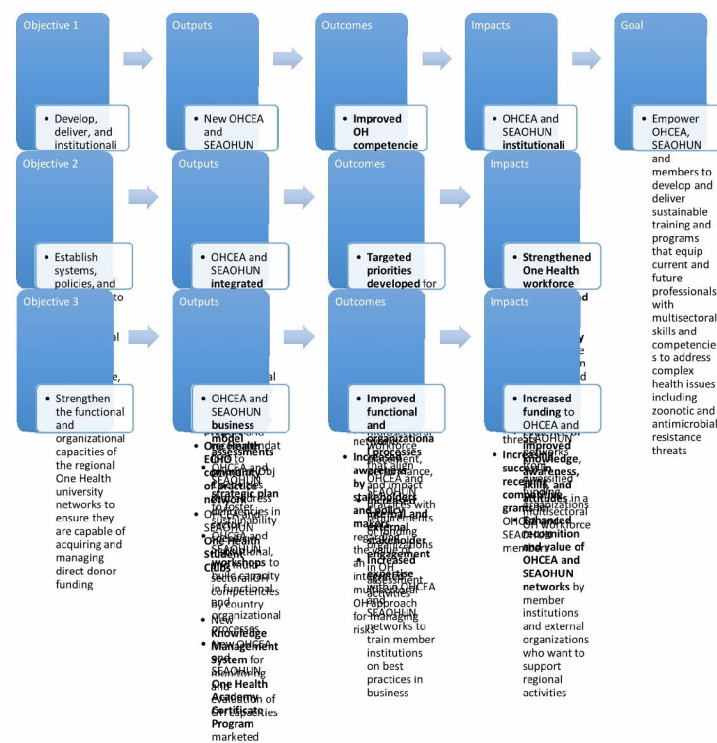
[https://assets.publishing.service.gov.uk/media/57a08a66ed915d622c000703/Appendix\\_3\\_ToC\\_Examples.pdf](https://assets.publishing.service.gov.uk/media/57a08a66ed915d622c000703/Appendix_3_ToC_Examples.pdf)

- OHCEA & SEAOHUN One Health Academy idea - I've been mulling over with some of you how we can propose a few specific deliverables that are potential game changers for OHCEA and SEAOHUN impact and sustainability, while still keeping the momentum of the OHW current trajectory and the activities that have been going well in the regions. We've talked previously about launching a regional One Health ECHO platform for OHCEA and for SEAOHUN to strengthen the community of practice knowledge and connectivity. We can also propose delivering an improved knowledge management system to increase the networks' ability to engage with individuals for learning activities, track their progress, etc. But here is the idea I would like folks to think about and weigh in on for the calls this week: **should we propose launching an OHCEA and SEAOHUN One Health Academy that would provide a menu of learning activities and result in the network issuing a One Health Certificate to individuals who complete a certain number of official learning activities to tick all the boxes on their OH competency report card?** This could be a unique offering that would add value to the two networks, is potentially marketable to help with longer term sustainability for the networks, and would help individuals increase their OH competencies in a more structured and coordinated way than what I think the networks currently do. We could draw in lots of the existing OHW activities that we deem relevant and add our own to more comprehensively or effectively address the OH competencies on p7 of the attached REDACTED et al. article. Give this some thought and let's discuss this week.

Best wishes, Woutrina

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# Core Competencies in One Health Education: What Are We Missing?

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June 4, 2018

## Introduction

Today's public health challenges are complex and crosscutting. Antimicrobial resistance, pollution, food security, biosafety, biosecurity, and emerging and reemerging infectious diseases are associated with changes in land use, population growth, urbanization, global travel and trade, industrial activities, and climate change [1-5]. International stakeholders have made efforts to address these issues, such as the revision of the International Health Regulations (IHR) and development of Sustainable Development Goals (SDGs) and the Global Health Security Agenda [1,6,7]. However, in recent years, the proliferation of antimicrobial-resistant organisms infecting humans and animals, political and natural disaster-related food insecurity, and outbreaks of many diseases, such as Ebola, chikungunya, Zika virus, Middle East Respiratory Syndrome, cholera, plague, and yellow fever, have highlighted our vulnerability to emerging infectious diseases among other crises [1,8-10]. In response, a transdisciplinary approach among human, animal, plant, and environmental health disciplines, described as One Health, has gained support and visibility because of its capacity to synergistically address these challenges. Greater emphasis on the One Health approach has been suggested by several voluntary peer-to-peer reviews by countries seeking to evaluate their capacities to address infectious disease threats. These Joint External Evaluations (JEEs) have been conducted under the IHR to identify urgent gaps in participating countries' health security systems and to broadly promote capacity building [11]. In 2016, the JEE for the United States identified a major gap: inconsistent coordination across various health

sectors at the federal, state, and local levels [12]. The United States was encouraged to develop a more formal One Health strategy to address these challenges. In response to this call, the Forum on Microbial Threats of the National Academies of Sciences, Engineering, and Medicine (the National Academies) formed a One Health Action Collaborative to evaluate the current status, successes, and challenges of deploying the One Health approach and to catalyze efficient and effective implementation.

An important step toward advancing such a strategy in the United States would be to apply consistent One Health core competencies in education. Lessons learned from infectious disease outbreaks in recent years have illustrated that training professionals in the One Health arena has the potential to improve epidemic and pandemic preparedness [13,14]. Furthermore, the National Academies recommended coordinating emergency preparedness and response as one of the major future roles of the United States in global health in 2017 [15]. Without a One Health approach, experts in environmental, animal, and human health will continue to address these challenges independently and in an uncoordinated fashion, missing the opportunity to maximize the benefits of shared knowledge, shared professional expertise, and available resources [16]. Beyond conceptual benefits of employing the One Health approach, such as building partnerships across institutional and disciplinary barriers for collaborative problem solving, the available evidence illustrates higher returns on health investments and technical efficiencies, such as avoiding duplicate logistic efforts through joint pathogen detection and human-animal

vaccination campaigns [17-20]. It is therefore a top priority for the United States to train future One Health leaders through sound, competency-based education that measures the learners' abilities to demonstrate specific skills [21].

Although the One Health approach has been championed in many academic and international organizations for decades, trends indicate an increase in the number of professional associations, scientific publications, and academic programs with a One Health theme only in recent years [22-24]. The authors of this paper have set out to understand the evolution of existing core competencies in One Health education, assess how core competencies are being applied in academic programs in the United States, and identify gaps that should be filled through formal recommendations. In this paper, we discuss the unique challenges facing the incorporation of One Health core competencies in educational programs and provide recommendations to advance their visibility and use.

## Methods

### Existing Core Competencies

A literature search for One Health core competencies was conducted on PubMed, as well as websites for governmental and nongovernmental organizations, academic institutions, and professional associations. Keywords for the search were "One Health core competencies" OR "One Health competencies" OR "One Health education." Furthermore, competencies for the master of public health (MPH) program were identified through literature search and online reports.

### One Health Academic Degree Programs

One Health academic programs were identified through a literature search on PubMed, recommendations by experts, and a web-based search for academic degree programs using a combination of the following keywords: "One Health" OR "EcoHealth" OR "veterinary public health" OR "planetary health" OR "geohealth" OR "medical geography" AND "program" OR "degree" OR "bachelor's" OR "undergraduate" OR "master's" OR "graduate" OR "doctoral" OR "PhD." Additionally, a combination of keywords, "public AND health AND animal," "environmental AND health AND animal," "agriculture AND health AND human," "agriculture AND health AND environment," were used. "Public health" and "agriculture health" were used in combination with other keywords, because a large number of pub-

lic health and agriculture health programs did not result in One Health-related programs being identified (for example, there are 186 accredited public health schools and programs, but most are not using a One Health approach, nor do they include animal and/or environmental health) [25]. Academic degree programs were included in the study if they were based in the United States and the degree name included "One Health," were described as a One Health program, or were taught with an interdisciplinary approach linking human, animal, and environmental health disciplines or professions.

Available information on the academic institution, department, state, name of degree, time-to-degree, eligibility, and year of program establishment were extracted and recorded in a database. Course descriptions and degree requirements for each of the programs were evaluated to complete any missing information. Furthermore, all program administrators were contacted by e-mail to complete any missing information not easily accessible in the public domain. Available information for each degree program, such as the list of core competencies, course descriptions, and degree requirements, was reviewed and assessed if key areas were mentioned, included, or taught in the degree program. While acknowledging that they are strongly interconnected, inclusion of the following key areas were assessed for each curriculum: antimicrobial resistance, zoonoses, food safety/food security, geographic information systems, emerging infectious diseases, epidemiology, plant biology, law, economics, toxicology, agriculture/livestock, policy, ecology/environmental health, vector-borne diseases, conservation/wildlife, and social and behavioral sciences. Both key neglected areas, such as plant biology and food security, and areas upon which the One Health approach has previously focused, such as zoonoses and emerging infectious diseases [26], were identified through discussions among the members of the National Academies' One Health Action Collaborative. If the key area was represented in at least 75 percent of all identified degree programs, it was defined as "well represented." Conversely, if the key area was represented in less than 25 percent of all identified degree programs, it was defined as "underrepresented." Furthermore, we assessed whether programs included applied practical training and communications in their curricula. Inclusion of applied practical training in an academic curriculum was defined as the requirement to participate in



practical experiences, capstone projects, internships, or externships related to their study focus.

## Findings

### Existing One Health Core Competencies

We identified 24 manuscripts and reports related to One Health and education and closely evaluated seven in the final review. The comprehensive review by Frankson et al. (2016) summarized the development and synthesis of One Health core competencies domains [27]. There were several past initiatives, including the Bellagio working group in 2008, the Stone Mountain Training Workgroup in 2010, and the US Agency for International Development RESPOND initiative in 2011, as well as a synthesis of competency domains completed in Rome in 2012 [27-29]. In addition, a university network in Southeast Asia defined One Health core competency domains and learning objectives in 2013 [30]. Since then, One Health core competency recommendations have not been updated and provided as a public resource. Although the three aforementioned One Health competency frameworks were developed individually, similar core competency domains were identified. Seven domains were identified in the Rome synthesis in 2012: (1) Management, (2) Communication and informatics, (3) Values and ethics, (4) Leadership, (5) Team and collaboration, (6) Roles and responsibilities, and (7) Systems thinking. Health sciences was not identified in these competency domains. Keywords such as “cross-disciplinary,” “diversity of disciplines,” and “interdependency” were used in examples provided for these competency domains.

There is currently no accrediting body for One Health degree programs, unlike public health degree programs, understandably because One Health is considered more of an approach and less of a discipline; therefore, no standardized structure or expectations exist for these programs. In 2016, the National Academies held a workshop titled “The Role of Accreditation in Enhancing Quality and Innovation in Health Professionals,” in which attendees discussed the accreditation of One Health education and associated challenges, especially given the globalization of the workforce [31]. The workshop explored the history of accreditation within veterinary medical education and acknowledged that standardized certification could be challenging when there are different societal expectations of professions working in varying cultural contexts.

Although public health is usually focused on human health, whereas One Health takes a broader view, the two have much in common. They share the goal of promoting health and well-being at the population level through interdisciplinary collaboration, and they both require practitioners with knowledge and skills that span multiple domains. Indeed, the overlap between core competencies in the One Health Rome synthesis and the accredited MPH degree includes the competency domains of “leadership,” “systems thinking,” and “communication and informatics.” Now the One Health approach is beginning to be integrated into public health education. In October 2016, One Health was added to the accreditation criteria by the Council on Education for Public Health, the accrediting body for US public health schools [32]. The One Health concept is now included in a section titled “Foundational Public Health Knowledge,” and all MPH and doctor of public health students are expected to be able to “explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health)” at the time of program completion [32]. This core addition is to be incorporated by the end of 2018. In addition, a recent study advocated for the inclusion of One Health in medical school education, because One Health aligns with the concept of caring for patients as a whole and has gained a high level of acceptance among international organizations [33].

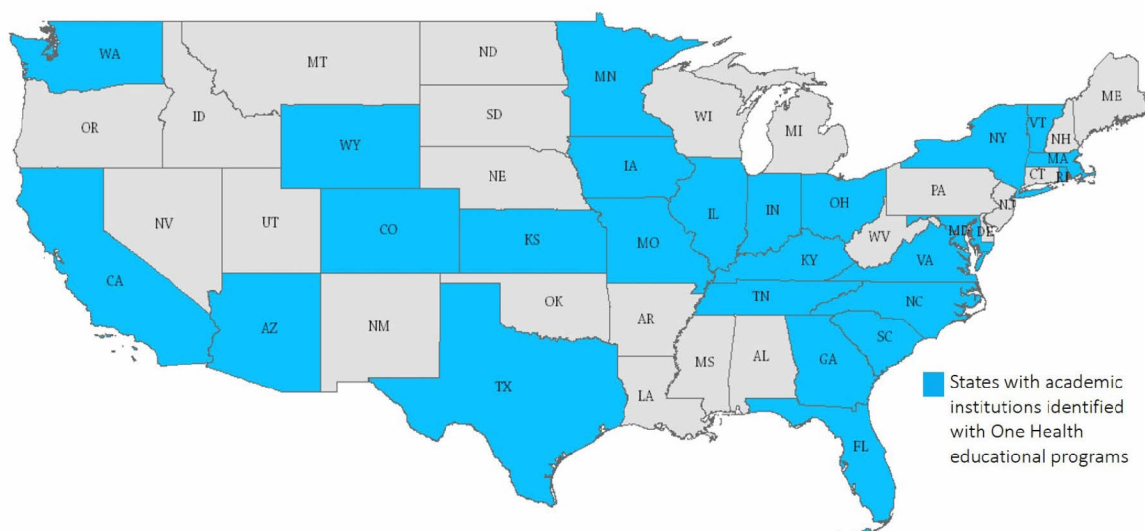
### One Health Academic Degree Programs

One Health education has been championed around the world by regional university networks [30,34] and academic institutions, as highlighted in a recent Western Europe review [35]. In the United States, we identified at least 45 One Health academic degree programs (see Figure 1). The majority of One Health academic degrees are new—19 out of 23 academic programs (83 percent) for which the founding year could be identified were established in or after 2002. Additionally, two new programs were launched in 2017 (see Figure 2). Among 45 programs, 27 were master’s level (60 percent), 10 were bachelor’s level (majors and minors) (22 percent), and 8 were doctoral programs (18 percent). Time-to-degree varied according to the educational level of the degree program. All bachelor’s programs were four years; master’s programs varied from one to five years, including full-time, part-time, dual degree, or online courses; and doctoral programs were largely unspecified. Master’s degrees included 18 MPH de-

degrees, 6 master of science degrees, 1 master of preventive veterinary medicine, 1 master of health sciences, and 1 master of food and agriculture law and policy. Six degree programs (13 percent) included the words “One Health” in the official title, such as “MPH in One Health” and “Bachelor with One Health minor.” There were 35 (78 percent) academic programs in public universities and 10 (22 percent) programs in private universities. All but one degree program were housed under colleges, departments, or schools of disciplines related to health sciences, and one program was offered in a law school. It is possible that additional programs exist but were not identified because they did not meet our search criteria. Among the 45 identified programs, 14 had competencies that were publicly available online (31 percent), and another 4 programs provided a list of competencies once they were contacted directly (9 percent). The remaining 27 programs (60 percent) did not explicitly state core competencies on their website, nor did they have them available when contacted. Some reasons given for lack of specific competency listings were that they were reflected in the program descriptions or that the curriculum was fitted to individual students’ needs and interests. Therefore, how and if core competencies have been applied in these programs is unclear.

Based on the identification of core competencies, or the programs’ course descriptions and degree requirements in cases when core competencies were unavailable, it was clear that some key areas were included in the curriculum of more degree programs than others. There were two well-represented disciplines, which were identified in 75 percent or more of all degree programs, and three underrepresented disciplines, which were identified in less than 25 percent of all degree programs. Well-represented disciplines were epidemiology and environmental health/ecology. Underrepresented disciplines were plant biology, antimicrobial resistance, and law (see Figure 3). Some programs were specifically tailored to conservation ( $n=1$ ), occupational health ( $n=3$ ), entomology ( $n=3$ ), and policy or legal issues ( $n=2$ ) employing a One Health approach.

Furthermore, 31 out of 45 One Health programs (69 percent) placed emphasis on integrated training and collaborative work between academia and public health agencies in the form of practical experiences, capstone projects, internships, or externships. Communication was mentioned in descriptions or competencies in 20 out of 45 programs (44 percent).

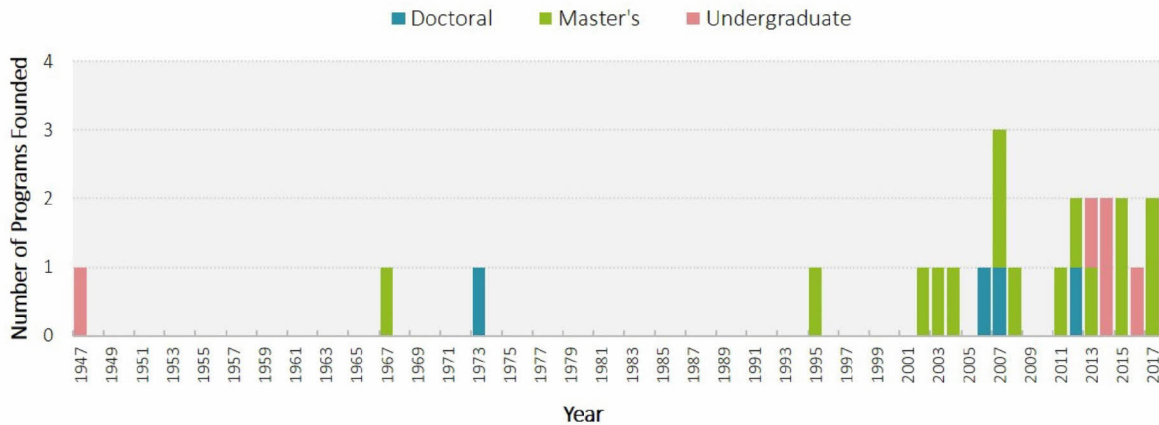


**FIGURE 1 | Geographic Location of One Health Programs by State**

SOURCE: Togami et al., “Core Competencies in One Health Education: What Are We Missing?,” National Academy of Medicine.

NOTE: One Health academic programs were identified in the contiguous United States only.





- 1947 CDC [a] establishes Veterinary Public Health Division
- 2004 Manhattan Principles are released to holistically prevent epidemics and maintain ecosystem integrity
- 2007 AMA [b] and AVMA [c] call for increased collaboration between human and animal health
- 2009 USAID [d] establishes Emerging Pandemic Threats program  
CDC establishes One Health Office
- 2010 FAO-OIE-WHO Tripartite [e-g] publishes collaborative concept note  
United Nations and World Bank set One Health framework for animal and pandemic influenza
- 2017 G20 [h] recommends One Health approach to address antimicrobial resistance

**FIGURE 2 | Founding Year of One Health Programs by Educational Level and Major Events in One Health**

SOURCE: Togami et al., "Core Competencies in One Health Education: What Are We Missing?," National Academy of Medicine.

NOTES: Founding years were available from 24 of 45 programs. If a program was founded in one year and merged with another program later, the initial year was included in the figure. Major events in One Health were adapted from publicly available resources [36-41].

[a] CDC = US Centers for Disease Control and Prevention; [b] AMA = American Medical Association; [c] AVMA = American Veterinary Medical Association; [d] USAID = United States Agency for International Development; [e] FAO = Food and Agricultural Organization of the United Nations; [f] OIE = World Organisation for Animal Health; [g] WHO = World Health Organization; [h] G20 = Group of Twenty

| Underrepresented  | Identified in 25% to < 50%   | Identified in 50% to < 75%  | Well Represented  |
|---|--|---|---|
| <b>Key areas identified in less than 25% of total programs</b> <ul style="list-style-type: none"> <li>Plant biology</li> <li>Antimicrobial resistance</li> <li>Law</li> </ul> | <b>Identified in 25% to &lt; 50%</b> <ul style="list-style-type: none"> <li>Zoonoses</li> <li>Geography/GIS</li> <li>Emerging infectious diseases</li> <li>Economics</li> <li>Toxicology</li> <li>Conservation/wildlife</li> </ul> | <b>Identified in 50% to &lt; 75%</b> <ul style="list-style-type: none"> <li>Food safety/food security</li> <li>Agriculture/livestock</li> <li>Policy</li> <li>Vector-borne diseases/entomology</li> <li>Social and behavioral sciences</li> </ul> | <b>Identified in 75% or more</b> <ul style="list-style-type: none"> <li>Epidemiology</li> <li>Environmental health/ecology</li> </ul> |

**FIGURE 3 | Key Areas Represented in One Health Degree Programs**

SOURCE: Togami et al., "Core Competencies in One Health Education: What Are We Missing?," National Academy of Medicine.

NOTES: "Total programs" refers to the 45 One Health academic programs identified in this study. GIS = geographic information system.



## Discussion and Recommendations

This study, identifying and characterizing 45 One Health educational programs in the United States, illustrates that the One Health approach is now employed by numerous schools and disciplines as a means to educate students. Identification of core competencies, course descriptions, and direct communication enabled us to compare key areas taught and disciplinary emphases. We support efforts by many academic institutions to launch and continue to provide education employing a One Health approach. The variety of educational levels from undergraduate to doctoral, tailoring of programs to specific areas of emphases such as policy, law, and conservation, as well as programs being administered by schools of various disciplines not limited to the veterinary field, indicate a diverse and growing pool of One Health educational programs. Academic programs showed efforts to incorporate multiple disciplines, as well as goals of exposing students to real-life work environments as part of their curricula. However, there were some gaps that could be filled to further strengthen One Health education. In light of the above, the authors of this paper suggest the following recommendations based on the findings discussed here, as well as insights from individual participants in the National Academies' One Health Action Collaborative.

### Recommendations

#### *1. Clearly state core competencies, including proficiency in at least one health science*

Academic institutions delivering One Health programs should make voluntary commitments to apply One Health core competencies to their programs. Programs will vary in their specific curriculum, their focus, their student base, and their expected subject matter mastery; however, program administrators can draw from these recommended core competencies to craft program-specific lists appropriate to their institutional goals. A consistent application of core competencies will mitigate the issue of inconsistent skill sets in graduates across disparate departments or schools. Table 1 outlines the core competencies we recommend, adapted from the most recently established undergraduate-level degree we identified with publicly available competencies, the bachelor of science degree in global disease biology at the University of California, Davis [42]. These competencies can be reviewed and

applied according to the level of mastery that is intended for students in specific academic programs.

#### *2. Educate future professionals in the One Health arena in disciplines that are currently well represented, as well as disciplines that are currently not well represented*

Of the One Health target areas, antimicrobial resistance, law, and plant biology have received the least amount of focus in the current educational programs reviewed here and thus represent gaps in curricula. To equip future One Health professionals with a wide array of skill sets for problem solving, we recommend that academic degree programs provide students access to a multidisciplinary curriculum and faculty. As an example, we should discuss disease management in the context of various drivers of disease (for example, biological and environmental [natural, built, socioeconomic, and so on]) and explore the range of species and environments that affect disease transmission, including insects, plants, food, and water [43]. Research methods, novel diagnostic techniques, and protocols from the plant-based agricultural and food safety fields could be used as models for disease management in other types of populations; the plant biology field, for example, uses risk assessments for pathogen introduction, surrogate models, and next-generation diagnostics in developing disease control approaches [44]. One Health program faculties should include professionals not usually engaged in medical education, such as vector entomologists, food production professionals, and plant pathologists.

It is also important for programs to recognize and stress that the One Health approach has a broader application that reaches beyond addressing infectious disease threats in humans and animals. The interconnectedness between changes in climate, land use, population dynamics, foreign policy, biosecurity, economics, trade, agriculture, and natural resources are also important issues under the One Health umbrella [45]. For example, accelerating urbanization and changes in climate underlines the importance of ensuring that the food on our tables is safe and that people have sustainable access to nutritious and healthful food [1,46]. As institutions consider revising existing curricula or developing new programs, emphasizing underrepresented areas in One Health education for programs considering curricular revision or development will help drive paradigm shifts, such as the one needed to

**Table 1 | Recommended Core Competencies for One Health Education**

| Health Knowledge   | Global and Local Issues in Humans, Animals, Plants and the Environment  | Professional Characteristics  |
|--|---|---|
| <i>Objective</i>   | <i>Objective</i>  | <i>Objective</i>  |
| To demonstrate knowledge of established and evolving transdisciplinary One Health sciences, including those relevant to public health, animal health, environmental sciences, and modern agriculture   | To demonstrate an understanding of historical, cultural, political, economic, and scientific aspects of complex and emerging health problems that are amenable to the One Health approach   | To demonstrate the ability to understand and apply principles of research and evaluation methods to policy and health program implementation, as well as apply scientific findings to real-life situations  |
| <ul style="list-style-type: none"> <li>• Characterize the etiology, evolution, and ecology of infectious disease agents of people, animals, and plants that are of importance to health.</li> <li>• Describe the main transmission routes for toxins, pathogens, and resistance genes, including human-animal-plant-environmental exposures, as well as vector-borne, waterborne, and airborne cycles.</li> <li>• Explain epidemiologic principles used to characterize problems that involve human, animal, plant, and environmental components.</li> <li>• Understand scientific principles such as biological complexity, genetic diversity, and interactions of systems from individuals to ecosystems that influence modern complex challenges in human, animal, plant, and environmental health.</li> <li>• Identify common cultural and socioeconomic determinants and effects of illness, including poverty, residential geography, cultural practices, education, nutrition, and resource security.</li> <li>• Explain how biosurveillance, diagnostics, and therapeutic countermeasures are deployed.</li> <li>• Describe interventions used to prevent disease and improve human, animal, plant, and environmental health at the individual, community, and population levels.</li> </ul> | <ul style="list-style-type: none"> <li>• Describe the biological principles, scope, and complexity of disease in people, animals, plants, and the environment.</li> <li>• Understand the effects of global change on health and how both local and global factors affect disease transmission within and between countries.</li> <li>• Identify and understand the origins and determinants of health (human, animal, plant, and environment) as related to disease.</li> <li>• Compare and contrast health and non-health consequences of diseases and exposures, including social and behavioral, economic, and political effects across global regions.</li> <li>• Recognize major challenges and opportunities to improve health in a global and local context through practical and applied training.</li> <li>• Demonstrate a basic understanding of pre- and post-production food safety.</li> <li>• Understand the structure and responsibilities of the public health system, including the local, state, and national levels of government.</li> <li>• Describe the relationship among various key One Health stakeholders locally and globally.</li> </ul> | <ul style="list-style-type: none"> <li>• Describe the benefits and challenges of a multidisciplinary, integrative approach when implementing studies regarding health concerns at the human-animal-plant-environment interface.</li> <li>• Effectively communicate, both orally and in writing, scientific findings to the scientific community, non-health-related academics, public audiences, media, and policy makers.</li> <li>• Demonstrate scientific quantitative skills, such as the ability to evaluate experimental design, interpret scientific findings, and develop discussions, as well as provide implementable recommendations.</li> <li>• Demonstrate the ability to build and manage a transdisciplinary team and apply principles to conduct ethical, scientifically sound research that will inform policy.</li> <li>• Develop a plan to translate research findings and new discoveries into health policies, community programs, interventions, and public education in a manner that is sustainable, culturally relevant, and economically feasible.</li> </ul> |

SOURCE: Togami et al., "Core Competencies in One Health Education: What Are We Missing?," National Academy of Medicine.



move beyond food safety to food security. Broadening the skill base of health professionals involved in One Health education will also help to strengthen IHR core capacities, such as pandemic preparedness, and to accelerate progress toward achieving SDGs.

### *3. Continue to focus on practical and applied training*

Most One Health degree programs already emphasize practical training, where students are required to participate in practical experiences, capstone projects, internships, or externships related to their studies. One Health programs with a focus on working in a nonacademic setting will allow future One Health leaders to work effectively in various agencies, ranging from local and state agencies to international organizations. In addition, training in real-life settings equips future One Health practitioners with cultural competencies, such as understanding the importance of fostering local ownership of a project, and in undertaking multisectoral and interdisciplinary collaboration when working in lower- and middle-income countries. Practical fieldwork develops these skills in a way that classroom education cannot, and it is vital to trainees' success, both in the public and private sectors.

### *4. Emphasize communication in One Health education - coordination and collaboration are essential to the One Health approach*

Communication is one of the seven domains in the existing competency domains, but it remains absent in many extant One Health programs (25 out of 45 programs, 56 percent). Because coordination and collaboration across disciplines is essential to the One Health approach and shortcomings in articulating the One Health agenda have been a challenge [26], training in communication should be further emphasized and applied in all One Health degree programs. Proficiency includes communicating to build and manage a transdisciplinary team, communicating to academics and professionals across various disciplines, and communicating to policy makers and the public, as well as communicating in different cultural settings. Anticipated effects of improving communications training include clear and timely risk communications during health emergencies and increased stakeholder engagement around the One Health approach. As further evidence becomes available, professionals should be prepared to communicate solutions derived through the One

Health approach, as well as the general benefits and feasibility of employing the One Health approach as global health challenges continue to emerge.

### **A Step-by-Step Approach to One Health Core Competencies**

We encourage program directors and administrators to employ the core competencies recommended in this paper, as well as to consider other existing core competency domains and established disciplinary-based accreditation standards in their curricular development and revision, following the six steps shown in Figure 4. This approach is intended to provide a framework for administrators to become familiar with competency-based education in One Health, clearly define their program objectives, and optimize core competencies for their academic programs. Voluntary commitment to employing One Health core competencies by program administrators would lead to a stronger, competency-based education, no matter what the program focus may be.

### **Future Directions**

It is important to define, develop, evaluate, improve, and continue to refine One Health education, not only in One Health degree programs but also in existing public health, environmental, veterinary, and medical curricula. We suggest that One Health academic degree programs be built on a foundation of core competencies and that an emphasis on practical skills is needed. In addition, it is important that new and extant initiatives with common interdisciplinary approaches, such as planetary health, geohealth, ecohealth, evolutionary medicine, and One Health, communicate and stay connected. Moving forward, we must fill gaps, as well as evaluate career trajectories, of One Health degree program graduates. An analysis of One Health professionals in the workforce and examples of One Health successes from applying core competencies could be useful, including evaluation of the willingness of funding agencies to support investments in One Health educational programs, either directly or through active recruitment of graduates into career positions. The One Health movement has gained growing support in recent years and could continue to develop and be recognized as effective through improved education, especially if graduates are shown to be valuable assets in the health workforce and a driving force in global health problem solving.

### A Step-by-Step Approach to Applying One Health Core Competencies

Suggestions for Academic Program Administrators

**Step 1 Understand the benefits and challenges of competency-based education.**

- If not already, become familiar with the [basics](#) of competency-based education, the [development process](#) of the competency model for the master of public health degree, and [previous efforts](#) regarding One Health core competencies, as well as other references.

**Step 2 Evaluate and catalogue the objectives of your academic degree program.**

**Step 3 Review the curriculum structure of your program and the list of core competencies, if available.**

- Compare them with the One Health competency domains, as well as subdomains and competency examples from past initiatives, such as the [US Agency for International Development RESPOND Initiative's One Health Core Competency Domains, Subdomains, and Competency Examples](#).
- Consider incorporating the core competencies and skill sets suggested above.

**Step 4 Consider adding missing disciplines and skill sets to your existing program.**

- Include key focus areas in introductory courses to orient students to One Health early in the curriculum.
- Identify strengths and weaknesses of your program, in relation to core competencies.
- Add guest lectures for gaps in faculty expertise.

**Step 5 Make the core competencies of your program publicly visible.**

- Make the core competencies available on your website and in recruiting materials for the benefit of both prospective students and employers of your graduates.

**Step 6 Solicit feedback from students, graduates, faculty, and alumni to continue revising and optimizing core competencies and associated curricular offerings.**

- Consider a continuous quality improvement plan or other regular systematic appraisal.
- Determine a process by which to incorporate feedback, improvement, and innovation into the curriculum.

**FIGURE 4 | A Step-by-Step Approach to Applying One Health Core Competencies in Academic Programs**

SOURCE: Togami et al., "Core Competencies in One Health Education: What Are We Missing?," National Academy of Medicine.

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### Author Information

All authors except for Eri Togami are members of the One Health Action Collaborative of the Forum on Microbial Threats at the National Academies of Sciences, Engineering, and Medicine.

**Eri Togami, DVM, MPH**, is a fellow at the One Health Institute at the University of California, Davis; **Jennifer L. Gardy, PhD**, is an assistant professor and Canada Research Chair in Public Health Genomics at the British Columbia Centre for Disease Control at the University of British Columbia; **Gail R. Hansen, DVM, MPH**, is a senior adviser at Hansen Consulting, LLC; **George H. Poste, DVM, PhD**, is chief scientist of the Complex Adaptive Systems Initiative and Regents' Professor and Del E. Webb Chair in Health Innovation at the Arizona State University; **David M. Rizzo, PhD**, is a professor and chair of the Department of Plant Pathology at the

University of California, Davis; **Mary E. Wilson, MD**, is a clinical professor of epidemiology and biostatistics at the University of California, San Francisco, and an adjunct professor of global health and population at the Harvard T. H. Chan School of Public Health, Boston; **Jonna A. K. Mazet, DVM, MPVM, PhD**, is a professor of epidemiology and disease ecology and executive director of the One Health Institute at the University of California, Davis.

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### Conflict-of-Interest Disclosures

None disclosed.

### Correspondence

Questions or comments should be directed to Jonna A. K. Mazet at [jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu).

### Disclaimer

The views expressed in this paper are those of the authors and not necessarily of the authors' organizations, the National Academy of Medicine (NAM), or the National Academies of Sciences, Engineering, and Medicine (the National Academies). This manuscript is intended to help inform and stimulate discussion. It is not a report of the NAM or the National Academies. Copyright by the National Academy of Sciences. All rights reserved.

**From:** Elizabeth Leasure <ealeasure@UCDAVIS.EDU>  
**To:** Andrew Clements <aclements@usaid.gov>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, William Karesh <Karesh@ecohealthalliance.org>, "dawson@ecohealthalliance.org" <dawson@ecohealthalliance.org>, David John Wolking <djwolking@ucdavis.edu>, "predictmgt@usaid.gov" <predictmgt@usaid.gov>  
**Subject:** RE: Pending equipment approval for Jordan?  
**Sent:** Wed, 20 Mar 2019 20:02:04 +0000

Hi Andrew. It is with me. It got put on hold with all of the back and forth regarding the delay in receiving the balance of our Y5 funding, which includes the \$200K from the Jordan Mission for Y5.

Thanks,  
Liz

*Elizabeth Leasure*  
*Financial Operations Manager*  
*One Health Institute*  
**REDACTED** (cell)  
530-754-9034 (office)  
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---

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Wednesday, March 20, 2019 12:53 PM  
**To:** Elizabeth Leasure <ealeasure@UCDAVIS.EDU>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>; William Karesh <Karesh@ecohealthalliance.org>; dawson@ecohealthalliance.org; David John Wolking <djwolking@ucdavis.edu>; predictmgt@usaid.gov  
**Subject:** Pending equipment approval for Jordan?

Hi Liz,

Is there an equipment approval coming for Jordan? When I was there in October, there was mention of it, but I don't recall having approved anything. The mission was asking about the status of this.

Thanks!

Andrew

*Andrew P. Clements, Ph.D.*  
*Senior Scientific Advisor*  
*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*  
*U.S. Agency for International Development*  
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**Subject:** RE: Pending equipment approval for Jordan?  
**Sent:** Wed, 20 Mar 2019 20:25:11 +0000

No, we haven't received it yet.

*Elizabeth Leasure*  
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**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Wednesday, March 20, 2019 1:04 PM  
**To:** Elizabeth Leasure <ealeasure@UCDAVIS.EDU>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>; William Karesh <Karesh@ecohealthalliance.org>; dawson@ecohealthalliance.org; David John Wolking <djwolking@ucdavis.edu>; predictmgt@usaid.gov  
**Subject:** Re: Pending equipment approval for Jordan?

can you remind me: did we send you the last \$200,000 of Mission funds (for year 5) with an earlier obligation?

Andrew Clements, Ph.D.  
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For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

On Wed, Mar 20, 2019 at 9:02 PM Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)> wrote:  
Hi Andrew. It is with me. It got put on hold with all of the back and forth regarding the delay in receiving the balance of our Y5 funding, which includes the \$200K from the Jordan Mission for Y5.

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Thanks!

Andrew

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**Sent:** Thu, 28 Mar 2019 16:40:16 -0700  
**Subject:** Re: June 13th - cosmos club?  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** Anthony Ramos <ramos@ecohealthalliance.org>

It looks like I can likely make it.

Thanks,  
J

On Thu, Mar 28, 2019 at 9:24 AM Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

Hi Jonna – do you think you’ll be able to make it to the June 13<sup>th</sup> Cosmos Club event (10<sup>th</sup> anniversary of the NAM report “Sustaining Global Surveillance and Response to Emerging Zoonotic Diseases”)?

I’m going to start working on the agenda with Anthony and it would be good if you can do it, but don’t want to ruin your travel plans for what might not be the most high-impact meeting this summer (!)...

Cheers,

Peter

**Peter Daszak**

*President*

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*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 14 May 2019 13:18:44 +0200  
**Subject:** DRC CBS interview: Predict input no longer required  
**To:** Kirsten Gilardi <kvgilardi@ucdavis.edu>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, "Lisa Kramer (Nairobi/EA/RHH)" <lkramer@usaid.gov>, Katherine Leasure <kaleasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>

Ok, so it's now off again so please cancel Kirsten's plans for DRC. Sorry for the confusion—we have no say in the erratic decision-making process.

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**From:** Kirsten Gilardi <kgilardi@ucdavis.edu>  
**To:** Andrew Clements <aclements@usaid.gov>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, "Lisa Kramer (Nairobi/EA/RHH)" <lkramer@usaid.gov>, Katherine Leasure <kaleasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>  
**Subject:** Re: DRC CBS interview: Predict input no longer required  
**Sent:** Tue, 14 May 2019 20:20:30 +0000

Okay, no problem. I'll let my DRC visa guru know that this is likely off — if anything changes in the next 48 hours, please let me know! -K

On May 14, 2019, at 4:18 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Ok, so it's now off again so please cancel Kirsten's plans for DRC. Sorry for the confusion—we have no say in the erratic decision-making process.

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
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*For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>*

**From:** Kirsten Gilardi <kvgilardi@ucdavis.edu>  
**To:** Lisa Kramer <lkramer@usaid.gov>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, Katherine Leasure <kaleasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>  
**Subject:** Re: DRC CBS interview: Predict input no longer required  
**Sent:** Thu, 16 May 2019 07:54:49 +0000

Okay Lisa, understood, but just a forewarning that it would be pretty difficult for me to get a visa last-minute...And as time goes on, my schedule will get less flexible.

Please keep me posted if/as you hear any change in plans: WhatsApp me on + **REDACTED** .

Thanks!

-Kirsten

On May 15, 2019, at 1:24 PM, Lisa Kramer <[lkramer@usaid.gov](mailto:lkramer@usaid.gov)> wrote:

Hi Kirsten,

The interview is still in all likelihood not going to work, but discussions are still bubbling. There's a slim chance that we could get a last minute request for you to do the interview. If that happens and Andrew gives the OK, would you be willing to make a last minute change in your schedule to go to Goma early next week? If so, you would need to restart things with your DRC visa Guru. Again, this would be rushing to get the visa for something that is likely to not happen, but could be fantastic press exposure if it does happen.

Lisa

**Lisa Kramer**

Regional Emerging Pandemic Threats Advisor

USAID/Kenya and East Africa

**REDACTED**

On Tue, May 14, 2019 at 11:20 PM Kirsten Gilardi <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)> wrote:

Okay, no problem. I'll let my DRC visa guru know that this is likely off — if anything changes in the next 48 hours, please let me know! -K

On May 14, 2019, at 4:18 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Ok, so it's now off again so please cancel Kirsten's plans for DRC. Sorry for the confusion—we have no say in the erratic decision-making process.

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: **REDACTED**  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

For more information on USAID's Emerging Pandemic Threats program, see: <http://www.usaid.gov/ept2>

**From:** Lisa Kramer <lkramer@usaid.gov>  
**Sent:** Thu, 16 May 2019 11:21:36 +0300  
**Subject:** Re: DRC CBS interview: Predict input no longer required  
**To:** Kirsten Gilardi <kvgilardi@ucdavis.edu>, Andrew Clements <aclements@usaid.gov>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, Katherine Leasure <kaleasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>

Thank you Kirsten and fully understand about the time frame needed to get a visa. I probably wasn't very clear writing at nearly midnight last night. If you and Andrew agree, I think you should apply for a DRC visa today. It's a very low chance that you would use it, but good to have in your back pocket if the winds suddenly change direction and we are given the opportunity for the crew to interview you.

Andrew, as AOR do you agree?

**Lisa Kramer**  
Regional Emerging Pandemic Threats Advisor  
USAID/Kenya and East Africa

**REDACTED**

On Thu, May 16, 2019 at 10:55 AM Kirsten Gilardi <kvgilardi@ucdavis.edu> wrote:

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Please keep me posted if/as you hear any change in plans: WhatsApp me on + **REDACTED**.

Thanks!

-Kirsten

On May 15, 2019, at 1:24 PM, Lisa Kramer <lkramer@usaid.gov> wrote:

Hi Kirsten,  
The interview is still in all likelihood not going to work, but discussions are still bubbling. There's a slim chance that we could get a last minute request for you to do the interview. If that happens and Andrew gives the OK, would you be willing to make a last minute change in your schedule to go to Goma early next week? If so, you would need to restart things with your DRC visa Guru. Again, this would be rushing to get the visa for something that is likely to not happen, but could be fantastic press exposure if it does happen.

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**Lisa Kramer**  
Regional Emerging Pandemic Threats Advisor  
USAID/Kenya and East Africa

**REDACTED**

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Andrew Clements, Ph.D.

UCDUSR0009732

Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: REDACTED  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

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**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Thu, 16 May 2019 04:51:27 -0400  
**Subject:** Re: DRC CBS interview: Predict input no longer required  
**To:** Lisa Kramer <lkramer@usaid.gov>  
**Cc:** Kirsten Gilardi <kvgilardi@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, Katherine Leasure <kaleasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>

Yes

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

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Andrew, as AOR do you agree?

**Lisa Kramer**  
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USAID/Kenya and East Africa  
+254-20-363-2107 (Office)  
+ **REDACTED** (Mobile)

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**To:** Andrew Clements <aclements@usaid.gov>, Lisa Kramer <lkramer@usaid.gov>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, Katherine Leasure <kaleasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>  
**Subject:** Re: DRC CBS interview: Predict input no longer required  
**Sent:** Thu, 16 May 2019 09:07:26 +0000

Okay: I'll apply for the visa and assuming I can get one, will be ready to cross if things change. -Kirsten

On May 16, 2019, at 1:51 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Yes

*Andrew P. Clements, Ph.D.*  
*Senior Scientific Advisor*  
*Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*  
*U.S. Agency for International Development*  
*Mobile phone: 1-571-345-4253*  
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**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Katherine Leasure <kaleasure@ucdavis.edu>  
**CC:** PREDICTMGT <predictmgt@usaid.gov>; Predict inbox <predict@ucdavis.edu>; Jonna Mazet <Jkmazet@ucdavis.edu>  
**Sent:** 6/7/2019 2:22:35 AM  
**Subject:** Re: PREDICT International Travel Requests

Approved subject to mission concurrence.

Andrew Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
E-mail: [aclements@usaid.gov](mailto:aclements@usaid.gov)

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On Fri, Jun 7, 2019 at 5:59 AM Katherine Leasure <kaleasure@ucdavis.edu> wrote:  
*Please find below international travel requests for your review and approval. My apologies for the late submission. I unfortunately lost track of this request in the midst of the last week of data conference coordination. Please let me know if you have any questions. Thanks!*

1. Ngoc (Tanzania): \$2000 airfare/\$309 (Dar es Salaam), \$157 (Other) max daily per diems
2. Barkhasbaatar (Tanzania): \$1,150 airfare/\$309 (Dar es Salaam), \$157 (Other) max daily per diems
3. Akpaki (Tanzania): \$700 airfare/\$309 (Dar es Salaam), \$157 (Other) max daily per diems
4. Koropogui (Tanzania): \$1100/\$309 (Dar es Salaam), \$157 (Other) max daily per diems

#### Travel Requests –

1. Wildlife Conservation Society would like to request travel approval for Pham Thi Cigh Ngoc to travel from Hanoi, Viet Nam to Dar es Salaam, Tanzania from June 22 to July 20, 2019 to participate in a training workshop with PREDICT partners in-country.

**Trip purpose:** Pham Thi Bich Ngoc will participate in this hands-on training course to strengthen their zoonotic disease surveillance and lab techniques and understanding of One Health principles. The training will cover a wide range of multidisciplinary topics ranging from viral detection, disease ecology and outbreak responses to the design and implementation of integrated disease surveillance systems. Other individuals being trained come from other countries in Africa, Asia, and North America, thus the training will also provide an excellent opportunity for networking and personal growth for Pham Thi Bich Ngoc and their ongoing and future career in Vietnam.

2. Wildlife Conservation Society would like to request travel approval for Ariunbaatar Barkhasbaatar to travel from Ulaanbaatar, Mongolia to Dar es Salaam, Tanzania from June 22 to July 23, 2019 to participate in a training workshop with PREDICT partners in-country.

**Trip purpose:** Ariunbaatar Barkhasbaatar will participate in this hands-on training course to strengthen their zoonotic disease surveillance and lab techniques and understanding of One Health principles. The training will cover a wide range of multidisciplinary topics ranging from viral detection, disease ecology and outbreak responses to the design and implementation of integrated disease surveillance systems. Other individuals being trained come from other countries in Africa, Asia, and North America, thus the training will also provide an excellent opportunity for networking and personal growth for Ariunbaatar Barkhasbaatar and their ongoing and future career in Mongolia.

3. UC Davis would like to request travel approval for Joel Akpaki to travel from Dakar, Senegal to Dar es Salaam, Tanzania from June 22 to July 20, 2019 to participate in a training workshop with PREDICT partners in-country.

**Trip purpose:** Joel Akpaki will participate in this hands-on training course to strengthen their zoonotic disease surveillance and lab techniques and understanding of One Health principles. The training will cover a wide range

of multidisciplinary topics ranging from viral detection, disease ecology and outbreak responses to the design and implementation of integrated disease surveillance systems. Other individuals being trained come from other countries in Africa, Asia, and North America, thus the training will also provide an excellent opportunity for networking and personal growth for Joel Akpaki and their ongoing and future career in Senegal.

4. UC Davis would like to request travel approval for Michel Koropogui to travel from Conakry, Guinea to Dar es Salaam, Tanzania from June 22 to July 20, 2019 to participate in a training workshop with PREDICT partners in-country.

**Trip purpose:** Michel Koropogui will participate in this hands-on training course to strengthen their zoonotic disease surveillance and lab techniques and understanding of One Health principles. The training will cover a wide range of multidisciplinary topics ranging from viral detection, disease ecology and outbreak responses to the design and implementation of integrated disease surveillance systems. Other individuals being trained come from other countries in Africa, Asia, and North America, thus the training will also provide an excellent opportunity for networking and personal growth for Michel Koropogui and their ongoing and future career in Guinea.

--

**Katherine Leasure**  
HR/Payroll/Financial Assistant  
One Health Institute  
530-752-7526

--

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**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**CC:** Predict inbox <predict@ucdavis.edu>; Alisa Pereira <apereira@usaid.gov>; Cara Chrisman <cchrisman@usaid.gov>; Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>  
**Sent:** 6/11/2019 7:20:44 AM  
**Subject:** Re: Guinea finding release complexities

Thanks for the update, Jonna.

*Andrew P. Clements, Ph.D.  
Senior Scientific Advisor  
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health  
U.S. Agency for International Development  
Mobile phone: 1-571-345-4253  
Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

On Jun 11, 2019, at 3:57 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Dear Andrew,

Just a note in advance of our call to let you know that we are still up in the air on a release date for the Guinea finding. The complexity has nothing to do with our work or the acceptance or quality of the finding. There are some country capacity and confidence issues that we can discuss today that are holding up action. In any case, our team, the Mission, and key people at Ministry of Health are all on the same page that the finding should be released ASAP. We had hoped to have some more solid info for you by now, but in the absence of a decision on the ground, we thought we should give you a process update.

For clarification and emphasis and in support of the MoH decision, we sent the attached letters (versions in French and English for your reference). A few details also below for your reference.

### **Background on activities in Guinea related to the PREDICT finding:**

After discussion and acceptance of the PREDICT finding and general consensus that it should be released, the MoH/ANSS made a request to our team to analyze the duplicate VTM samples in-country. Those samples are currently stored in the Viral Hemorrhagic Fever Laboratory (VHF) in Conakry. Our PREDICT team met with Dr. Sakoba of the ANSS on Friday May 31<sup>st</sup> with the signed letter stating our position that we don't recommend duplicate analyses be completed at the VHF for multiple reasons including biosafety and biosecurity concerns, as well as the potential that a duplicate analysis from another swab will not replicate the same result (attached: "Lettre Dr. Sakoba").

We then sent another signed letter to Dr. Sakoba on Monday June 3<sup>rd</sup> (letter dated May 31) with outcomes of the Friday meeting (attache: "Reponse Sakoba"):

- Confirmation that Dr. Sakoba received the letter stating our position on the testing of the VTM samples in the VHF lab
- Sakoba requested that PREDICT release the information publicly, and we have asked him to provide us with written confirmation of this request
- PREDICT will continue to engage with the Government of Guinea on how to proceed regarding the duplicate VTM samples but support may take time (no immediate action)
- PREDICT will continue planned activities that include community engagement but will not

release the information to the public, as we believe that the country should get the information first

Dr. Sakoba put a suspension on all activities related to the retesting of the VTM samples and we are waiting for further feedback.

Talk to you soon,

Jonna



**From:** William B. Karesh <karesh@ecohealthalliance.org>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>; Elizabeth Leasure <ealeasure@ucdavis.edu>; Ava Sullivan <sullivan@ecohealthalliance.org>; Amanda Andre <amanda.andre@ecohealthalliance.org>; Evelyn Luciano <luciano@ecohealthalliance.org>  
**CC:** Ehab Abu-Basha <abubasha@just.edu.jo>  
**Sent:** 6/12/2019 4:13:23 PM  
**Subject:** Re: PREDICT Jordan - ITA

July 16th and 18th.

BK

On Jun 12, 2019, at 7:03 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

Hi Jonna,

The Jordan team is planning for the official opening of the two labs in southern Jordan that were paid for by the additional funds from USAID Jordan Mission on July 14th and then the official project wrap-up meeting on July 16th with the MoH, MoA and MoE. They have coordinated these dates with the USAID/J and consistent with the work plan for the Mission funds.

They would like me to be there for these official events, but we are cognizant of the funding situation and failure of USAID to finalize agreements for these Year 5 activities.

I am not sure if the Mission is aware that USAID/W has not finalized the agreement and hence has not transferred the Mission funds to us. The Mission funds were included in the increased award ceiling modification so the Mission was not directing USAID/W funds away from other PREDICT-2 efforts, ie, the award ceiling modification would have been \$600k less without the Jordan Mission funding buy-in, and can not be used for activities outside of the Jordan work.

So, a few options that I can think of to consider:

- 1) We proceed as usual and submit an ITA.
- 2) You forward this to Andrew and see how he would like us to proceed.
- 3) I could re-write something like this and send again including Andrew and Maysa at the Mission.
- 4) Some other approach that you might think of.

At some point, the Mission needs to be informed about the agreement situation, if their FY19 money will be used or if they should reallocate it before the end of the fiscal year, and if they should expect the deliverables we agreed upon.

Thanks,

BK

**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** William B. Karesh <karesh@ecohealthalliance.org>  
**CC:** Elizabeth Leasure <ealeasure@ucdavis.edu>; Ava Sullivan <sullivan@ecohealthalliance.org>; Amanda Andre <amanda.andre@ecohealthalliance.org>; Ehab Abu-Basha <abubasha@just.edu.jo>; Evelyn Luciano <luciano@ecohealthalliance.org>  
**Sent:** 6/18/2019 4:13:21 AM  
**Subject:** Re: PREDICT Jordan - ITA

Hi,

I think we can certainly put an ITA forward for this travel & Andrew will probably approve it.

That said, EHA would be at risk in the case that the funding doesn't come through, just as we are for all expenses at this point. So you need to decide if you want to go, based on that concern.

I think it is also a reasonable thing to put an email forward to Andrew, letting him know that we haven't told the Mission that we don't have their money yet, but we need to do so, as it could affect operations at this point. I'm fine with you sending that email and copying me, but if you prefer that I send it, just let me know. I think we need to enlist Missions on our behalf at this point, including making sure that they know that Predict and associated activities will be ending soon.

See you tomorrow,

Jonna

On Wed, Jun 12, 2019 at 4:03 PM William B. Karesh <karesh@ecohealthalliance.org> wrote:  
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Thanks,

BK

**From:** Cara Chrisman <cchrisman@usaid.gov>  
**Sent:** Wed, 14 Aug 2019 15:33:33 -0400  
**Subject:** Re: URGENT - request to rescheduled GVP call -tomorrow  
**To:** Peter Daszak <daszak@ecohealthalliance.org>  
**Cc:** "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, [REDACTED] Samtha Maher <maher@ecohealthalliance.org>, "erubin@metabiota.com" <erubin@metabiota.com>, "dcarroll@usaid.gov" <dcarroll@usaid.gov>, "nwolfe@metabiota.com" <nwolfe@metabiota.com>

Hi All,  
I'm flexible, but ideally would need to be done by 6pm EST.

It would be very helpful to speak as we've had some changes with the plans for next week.

Thanks,  
Cara

Cara J. Chrisman, PhD  
Senior Infectious Diseases Technical Advisor  
U.S. Agency for International Development (USAID) Contractor  
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division  
2100 Crystal Drive, CP3-8091A, Arlington, VA 22202  
Desk: (571) 551-7413

Cell: ([REDACTED])  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

*GHSI-III - Social Solutions International, Inc. prime contractor*

On Wed, Aug 14, 2019 at 3:28 PM Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

Everyone – I just realized that we're on for a GVP call tomorrow at 1pm Eastern, but I have a meeting from 12-3pm Eastern with a group of Board-related people here in the office that I can't duck out of and that's been scheduled for weeks.

Could we re-schedule for any time between 3 and 6pm Eastern or even later would work for me?

Many apologies for the last minute request!!

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance

460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor

New York, NY 10001

Tel. +1 212-380-4474

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*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.*

**From:** Google Calendar [mailto:[calendar-notification@google.com](mailto:calendar-notification@google.com)] **On Behalf Of** [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

**Sent:** Thursday, August 1, 2019 10:33 AM

**To:** [jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu); [REDACTED] Samtha Maher; [erubin@metabiota.com](mailto:erubin@metabiota.com); [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov); Peter Daszak; [dcarroll@usaid.gov](mailto:dcarroll@usaid.gov); [nwolfe@metabiota.com](mailto:nwolfe@metabiota.com)

**Subject:** GVP call - Agenda

Hi All,

Looking forward to speaking today, it's been too long! We have a relatively short agenda today, please see below.

Best,  
Cara

- Thailand
- Berkeley meeting + GVP side mtg
- MacArthur
- AOB

### **GVP call**

**When** Thu Aug 1, 2019 1pm – 2pm Eastern Time - New York

**Where** call in line [REDACTED], passcode [REDACTED] ([map](#))

**Who**

- [watson@ecohealthalliance.org](mailto:watson@ecohealthalliance.org) - organizer
- [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)



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- Peter Daszak